Supporting Information

H₄octapa-Trastuzumab: Versatile Acyclic Chelate System for ¹¹¹In and ¹⁷⁷Lu Imaging and Therapy

Eric W. Price^{†,§}, Brian M. Zeglis[‡], Jacqueline F. Cawthray^{†,§}, Caterina F. Ramogida^{†,§}, Nicholas Ramos[‡], Jason S. Lewis^{*,‡}, Michael J. Adam^{*,§}, and Chris Orvig^{*,†}

[†]Medicinal Inorganic Chemistry Group, Department of Chemistry, University of British Columbia, 2036 Main Mall, Vancouver, British Columbia, Canada, V6T 1Z1.

§TRIUMF, 4004 Wesbrook Mall, Vancouver, British Columbia, Canada, V6T 2A3.

*Department of Radiology and Program in Molecular Pharmacology and Chemistry, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York, 10065, United States of America.

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Supplementary Figure S1. ¹H NMR spectrum (300 MHz, CDCl₃, RT) of 4.





Supplementary Figure S3. ¹H NMR spectrum (300 MHz, D₂O, RT) of H₄octapa (5).



externally referenced to a solution of $MeOH/D_2O$ (sr = -2.66).



Supplementary Figure S5. ¹H NMR spectrum (600 MHz, D₂O, RT) of [Lu(octapa)][•] (6).



Supplementary Figure S6. ¹³C NMR spectrum (150 MHz, D₂O, RT) of [**Lu(octapa)**][•](6), externally referenced to a solution of MeOH/D₂O.



Supplementary Figure S7. ¹H NMR spectrum (300 MHz, CDCl₃, RT) of 7.





Supplementary Figure S9. ¹H NMR spectrum (300 MHz, MeOD, RT) of **11**.



Supplementary Figure S10. ¹³C NMR spectrum (75 MHz, MeOD, RT) of **11**.



Supplementary Figure S11. ¹H NMR spectrum (400 MHz, MeOD, RT) of *p*-SCN-Bn-H₄octapa (12).



Supplementary Figure S12. ¹³C NMR spectrum (100 MHz, MeOD, RT) of *p*-SCN-Bn-H₄octapa (12).



Supplementary Figure S13. FT-ATR-IR spectrum (neat) of *p*-SCN-Bn-H₄octapa (12).



Supplementary Figure S14. Crude iTLC radiochromatograph of ¹¹¹In-octapatrastuzumab (radiolabeled in NH₄Ac buffer pH 5.5 100 mM, 15 min, RT and eluted with a mobile phase of 50 mM EDTA, pH 5) before purification, showing essentially quantitative radiolabeling yields. "Free" ¹¹¹In(EDTA) elutes near the solvent front ~150-200 mm.



Supplementary Figure S15. Crude iTLC radiochromatograph of ¹⁷⁷Lu-octapatrastuzumab (radiolabeled in NH₄Ac buffer pH 5.5 100 mM, 15 min, RT and eluted with a mobile phase of 50 mM EDTA, pH 5) before purification, showing essentially quantitative radiolabeling yields. "Free" ¹⁷⁷Lu(EDTA) elutes near the solvent front ~150-200 mm.

¹¹¹ In-octapa-trastuzumab Biodistribution ¹¹¹ In-DOTA-trastuzumab Biodistribution											
Organ	24 h	48 h	72 h	96 h	120 h	Organ	24 h	48 h	72 h	96 h	120 h
Blood	6.9 ± 5.1	7.6 ± 6.5	10.5 ± 7.1	6.9 ± 6.6	11.4 ± 6	Blood	18 ± 1.7	17.3 ± 2.6	16.8 ± 2.2	15 ± 3.6	14.3 ± 1.6
Tumor	57.4 ± 22	58.3 ± 17.2	57.8 ± 14.6	68.7 ± 20.5	72.4 ± 21.3	Tumor	22.3 ± 6.4	28.4 ± 5.2	30.6 ± 9.1	32.8 ± 7.3	31.5 ± 3.8
Heart	2.6 ± 0.5	2.5 ± 1.5	2.7 ± 1.4	1.9 ± 1.4	3.6 ± 1.6	Heart	6.1 ± 0.9	6.6 ± 2	5.6 ± 1.3	5.2 ± 1.8	5.2 ± 0.9
Lungs	4.4 ± 2.1	3.9 ± 2.3	5 ± 2.8	3.8 ± 3.3	6.3 ± 3	Lungs	7.2 ± 1.6	6.8 ± 3.3	5.2 ± 1.4	6.3 ± 1.2	5.7 ± 2.2
Liver	12 ± 2.4	10.6 ± 1.2	9.1 ± 0.8	8.5 ± 2	6.6 ± 0.6	Liver	6.2 ± 0.4	5.5 ± 1.4	4.8 ± 1.3	4.4 ± 1.7	5.2 ± 1.2
Spleen	8.9 ± 2.4	7.6 ± 1	8.1 ± 0.8	7.4 ± 1.1	6.5 ± 1.6	Spleen	3.6 ± 0.8	3.7 ± 1.6	3 ± 0.7	2.7 ± 0.7	3.4 ± 1.4
Stomach	1.4 ± 0.2	0.8 ± 0.2	1.2 ± 0.1	0.7 ± 0.3	0.7 ± 0.2	Stomach	0.7 ± 0.1	0.7 ± 0.4	0.8 ± 0.2	0.3 ± 0.2	0.6 ± 0.3
Large Intestine	3.7 ± 0.4	2.5 ± 0.7	2 ± 0.9	1.7 ± 0.4	1.2 ± 0.1	Large Intestine	0.5 ± 0.1	0.6 ± 0.1	0.7 ± 0.1	0.5 ± 0.1	0.5 ± 0.1
Small Intestine	3.8 ± 0.7	2.1 ± 0.4	2.5 ± 0.6	2.1 ± 0.4	1.5 ± 0.1	Small Intestine	1.9 ± 0.1	1.6 ± 0.5	1.7 ± 0.1	1.1 ± 0.2	1.3 ± 0.1
Kidnev	3.6 + 1.2	4.2 + 2.1	4.3 + 2.1	3.5 ± 2	4.3 ± 1.6	Kidney	5.3 ± 0.5	6.3 ± 0.9	5.1 + 1.7	5.8 ± 1.7	4.9 ± 0.4
Muscle	13+05	09+05	1+05	08+05	09+05	Muscle	07+02	08+03	05+01	0.4 ± 0.1	03+01
Bone	41+2	35+04	28+1	33+05	14+03	Bone	1+03	0.9 ± 0.1	11+04	09 ± 04	0.6 ± 0.2
Skin	108+14	93+14	72+21	54+12	3+11	Skin	18+04	21+07	26+01	17+08	22+08
Tumor/Tissue	24 h	48 h	72 h	96 h	120 h	Tumor/Tissue	24 h	48 h	72 h	96 h	120 h
Tumor/Blood	8.3 + 7	7.7 + 6.9	5.5 + 3.9	10 + 10	6.4 + 3.8	Tumor/Blood	1.2 ± 0.4	1.6 ± 0.4	1.8 + 0.6	2.2 + 0.7	2.2 ± 0.4
Tumor/Heart	223+95	236+16	21 4 + 12 3	358+275	201+109	Tumor/Heart	36+12	43+15	55+21	63+26	6+12
Tumor/Lung	131+8	15.1 ± 10	116+73	179+164	115+63	Tumor/Lung	31+11	42+22	59+24	52+15	55+22
Tumor/Liver	48+21	55+17	64+17	81+31	109+34	Tumor/Liver	36+11	51+16	64+25	75+33	61+15
Tumor/Snleen	65+3	77+25	71+19	93+31	111+42	Tumor/Snleen	62+22	76+36	103+4	12 + 4 2	92+39
Tumor/Stomach	40 8 + 16 9	76 1 + 28 6	466+129	92 6 + 48 5	103 3 + 43 3	Tumor/Stomach	327+117	41 9 + 26 2	403+158	983+522	499+212
Tumor/LI	155 ± 62	23 2 + 9 3	28 9 + 14 5	39 8 + 15 4	594+186	Tumor/LI	436+175	46 1 + 12 3	46 2 + 16 5	63 6 + 19 9	63 5 + 12 4
Tumor/SI	15+63	275+96	23 + 7 9	33 4 + 12 3	48 + 14 8	Tumor/SI	118+35	173+64	179+54	287+88	237+3
Tumor/Kidney	161+83	14 + 8 1	133+73	196+125	169+8	Tumor/Kidney	42+12	45+1	61+27	57+21	64+09
Tumor/Muscle	447+237	647 ± 422	56 8 + 33 2	893+591	789+522	Tumor/Muscle	33 2 + 13 3	367+149	63 4 + 26 4	796+265	90 + 22 8
Tumor/Bone	14 + 8 7	165 + 52	20.8 + 9.1	207+69	50 4 + 18 2	Tumor/Bone	22 + 8 9	32 + 7 6	29 + 13 6	383+216	486+185
Tumor/Skin	53+22	63+21	8+31	128+48	24 2 + 11 5	Tumor/Skin	123+46	136+5	117 + 35	194+98	146+55
ramer, sian	515 - 212	010 = 211	0 - 0.1	12:0 2 1:0	E IIE = 1110	runion, bian	10 - 110	10:0 - 0	110 - 515	1011 - 010	1110 - 515
¹⁷⁷ Lu-octana-tra	stuzumah					¹⁷⁷ Lu-DOTA-trast	luzumah				
¹⁷⁷ Lu-octapa-tras Organ	stuzumab 24 h	48 h	72 h	96 h	120 h	¹⁷⁷ Lu-DOTA-trast Organ	tuzumab 24 h	48 h	72 h	96 h	120 h
¹⁷⁷ Lu-octapa-tras Organ Blood	stuzumab 24 h 19.1 ± 1.5	48 h 9.1 ± 9.5	72 h 9.7 ± 5.2	96 h 8.9 ± 6.9	120 h 7.6 ± 5.7	¹⁷⁷ Lu-DOTA-trast Organ Blood	tuzumab 24 h 20.4 ± 1.7	48 h 17.4 ± 1	72 h 18.1 ± 2.8	96 h 15 ± 0.8	120 h 14.7 ± 0.7
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor	stuzumab 24 h 19.1 ± 1.5 50 ± 5.4	48 h 9.1 ± 9.5 63.5 ± 15	72 h 9.7 ± 5.2 62.4 ± 20	96 h 8.9 ± 6.9 70.4 ± 25.8	120 h 7.6 ± 5.7 56.6 ± 12.7	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor	24 h 20.4 ± 1.7 18.3 ± 4.8	48 h 17.4 ± 1 31.6 ± 2.9	72 h 18.1 ± 2.8 32.1 ± 7.4	96 h 15 ± 0.8 37 ± 9.5	120 h 14.7 ± 0.7 37.4 ± 10.3
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart	24 h 19.1 ± 1.5 50 ± 5.4 4.2 ± 0.7	48 h 9.1 ± 9.5 63.5 ± 15 3.2 ± 1.9	72 h 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9	96 h 8.9 ± 6.9 70.4 ± 25.8 2.3 ± 0.7	120 h 7.6 ± 5.7 56.6 ± 12.7 2.6 ± 1.4	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart	24 h 20.4 ± 1.7 18.3 ± 4.8 7.2 ± 1	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6	96 h 15 ± 0.8 37 ± 9.5 4.6 ± 1.1	120 h 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung	24 h 19.1 ± 1.5 50 ± 5.4 4.2 ± 0.7 7.8 ± 3.6	48 h 9.1 ± 9.5 63.5 ± 15 3.2 ± 1.9 3.9 ± 3.1	72 h 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3	96 h 8.9 ± 6.9 70.4 ± 25.8 2.3 ± 0.7 4.4 ± 2.5	120 h 7.6 ± 5.7 56.6 ± 12.7 2.6 ± 1.4 2.7 ± 1.8	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs	24 h 20.4 ± 1.7 18.3 ± 4.8 7.2 ± 1 10 ± 1.5	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3	96 h 15 ± 0.8 37 ± 9.5 4.6 ± 1.1 6.3 ± 0.6	120 h 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver	stuzumab 24 h 19.1 ± 1.5 50 ± 5.4 4.2 ± 0.7 7.8 ± 3.6 10.1 ± 1.3	48 h 9.1 ± 9.5 63.5 ± 15 3.2 ± 1.9 3.9 ± 3.1 13.2 + 4	72 h 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3 9.5 ± 3.5	96 h 8.9 ± 6.9 70.4 ± 25.8 2.3 ± 0.7 4.4 ± 2.5 9.8 ± 1.7	120 h 7.6 ± 5.7 56.6 ± 12.7 2.6 ± 1.4 2.7 ± 1.8 8 ± 2.6	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver	24 h 20.4 ± 1.7 18.3 ± 4.8 7.2 ± 1 10 ± 1.5 4.5 + 2	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5	96 h 15 ± 0.8 37 ± 9.5 4.6 ± 1.1 6.3 ± 0.6 2.8 ± 0.9	120 h 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1 3.7 ± 1.9
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Soleen	Stuzumab 24 h 19.1 ± 1.5 50 ± 5.4 4.2 ± 0.7 7.8 ± 3.6 10.1 ± 1.3 8.8 ± 2.3	48 h 9.1 ± 9.5 63.5 ± 15 3.2 ± 1.9 3.9 ± 3.1 13.2 ± 4 11.5 ± 2.5	$72 h$ 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3 9.5 ± 3.5 7.4 ± 2.8	96 h 8.9 ± 6.9 70.4 ± 25.8 2.3 ± 0.7 4.4 ± 2.5 9.8 ± 1.7 9.2 ± 1.2	120 h 7.6 ± 5.7 56.6 ± 12.7 2.6 ± 1.4 2.7 ± 1.8 8 ± 2.6 6.7 ± 2.4	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen	24 h 20.4 ± 1.7 18.3 ± 4.8 7.2 ± 1 10 ± 1.5 4.5 ± 2 3.8 ± 0.5	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6 3.1 ± 2.9	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1	96 h 15 ± 0.8 37 ± 9.5 4.6 ± 1.1 6.3 ± 0.6 2.8 ± 0.9 3.5 ± 0.4	120 h 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1 3.7 ± 1.9 3.8 ± 1
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach	$\begin{array}{c} \textbf{stuzumab} \\ \textbf{24 h} \\ 19.1 \pm 1.5 \\ 50 \pm 5.4 \\ 4.2 \pm 0.7 \\ 7.8 \pm 3.6 \\ 10.1 \pm 1.3 \\ 8.8 \pm 2.3 \\ 1.4 \pm 0.3 \end{array}$	48 h 9.1 ± 9.5 63.5 ± 15 3.2 ± 1.9 3.9 ± 3.1 13.2 ± 4 11.5 ± 2.5 1 ± 0.5	$72 h$ 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3 9.5 ± 3.5 7.4 ± 2.8 0.9 ± 0.4	96 h 8.9 ± 6.9 70.4 ± 25.8 2.3 ± 0.7 4.4 ± 2.5 9.8 ± 1.7 9.2 ± 1.2 1.1 ± 0.3	120 h 7.6 ± 5.7 56.6 ± 12.7 2.6 ± 1.4 2.7 ± 1.8 8 ± 2.6 6.7 ± 2.4 0.6 ± 0.2	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach	Z4 h 20.4 ± 1.7 18.3 ± 4.8 7.2 ± 1 10 ± 1.5 4.5 ± 2 3.8 ± 0.5 0.7 ± 0.2	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6 3.1 ± 2.9 1.3 ± 1.9	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1 0.9 ± 0.2	96 h 15 ± 0.8 37 ± 9.5 4.6 ± 1.1 6.3 ± 0.6 2.8 ± 0.9 3.5 ± 0.4 0.8 ± 0.2	120 h 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1 3.7 ± 1.9 3.8 ± 1 0.7 ± 0.2
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine	Stuzumab 24 h 19.1 ± 1.5 50 ± 5.4 4.2 ± 0.7 7.8 ± 3.6 10.1 ± 1.3 8.8 ± 2.3 1.4 ± 0.3 1.3 ± 0.3	48 h 9.1 ± 9.5 63.5 ± 15 3.2 ± 1.9 3.9 ± 3.1 13.2 ± 4 11.5 ± 2.5 1 ± 0.5 1 ± 0.3	$72 h$ 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3 9.5 ± 3.5 7.4 ± 2.8 0.9 ± 0.4 1.1 ± 0.5	96 h 8.9 ± 6.9 70.4 ± 25.8 2.3 ± 0.7 4.4 ± 2.5 9.8 ± 1.7 9.2 ± 1.2 1.1 ± 0.3 1.1 ± 0.2	120 h 7.6 ± 5.7 56.6 ± 12.7 2.6 ± 1.4 2.7 ± 1.8 8 ± 2.6 6.7 ± 2.4 0.6 ± 0.2 0.8 ± 0.2	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine	22.0.4 \pm 1.7 18.3 \pm 4.8 7.2 \pm 1 10 \pm 1.5 4.5 \pm 2 3.8 \pm 0.5 0.7 \pm 0.2 0.6 \pm 0.1	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6 3.1 ± 2.9 1.3 ± 1.9 0.5 ± 0.3	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1 0.9 ± 0.2 0.8 ± 0.2	96 h 15 ± 0.8 37 ± 9.5 4.6 ± 1.1 6.3 ± 0.6 2.8 ± 0.9 3.5 ± 0.4 0.8 ± 0.2 0.5 ± 0.1	120 h 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1 3.7 ± 1.9 3.8 ± 1 0.7 ± 0.2 0.6 ± 0.2
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine	$\begin{array}{c} \textbf{stuzumab} \\ \textbf{24 h} \\ 19.1 \pm 1.5 \\ 50 \pm 5.4 \\ 4.2 \pm 0.7 \\ 7.8 \pm 3.6 \\ 10.1 \pm 1.3 \\ 8.8 \pm 2.3 \\ 1.4 \pm 0.3 \\ 1.3 \pm 0.3 \\ 1.9 \pm 0.5 \end{array}$	48 h 9.1 ± 9.5 63.5 ± 15 3.2 ± 1.9 3.9 ± 3.1 13.2 ± 4 11.5 ± 2.5 1 ± 0.5 1 ± 0.3 2.5 ± 1.1	72 h 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3 9.5 ± 3.5 7.4 ± 2.8 0.9 ± 0.4 1.1 ± 0.5 2 ± 0.9	96 h 8.9 ± 6.9 70.4 ± 25.8 2.3 ± 0.7 4.4 ± 2.5 9.8 ± 1.7 9.2 ± 1.2 1.1 ± 0.3 1.1 ± 0.2 2.3 ± 0.4	$\begin{array}{c} \textbf{120 h} \\ \hline \textbf{7.6 \pm 5.7} \\ \hline \textbf{56.6 \pm 12.7} \\ \textbf{2.6 \pm 1.4} \\ \textbf{2.7 \pm 1.8} \\ \textbf{8 \pm 2.6} \\ \textbf{6.7 \pm 2.4} \\ \textbf{0.6 \pm 0.2} \\ \textbf{0.8 \pm 0.2} \\ \textbf{1.6 \pm 0.4} \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine	$\begin{array}{c} \textbf{zuumab}\\ \textbf{24 h}\\ \hline 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2 \end{array}$	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6 3.1 ± 2.9 1.3 ± 1.9 0.5 ± 0.3 1.5 ± 1	$72 h$ 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1 0.9 ± 0.2 0.8 ± 0.2 1.5 ± 0.4	$\begin{array}{c} \textbf{96 h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \end{array}$	$\begin{array}{c} \textbf{120 h} \\ \textbf{14.7 \pm 0.7} \\ \textbf{37.4 \pm 10.3} \\ \textbf{5.4 \pm 0.6} \\ \textbf{6 \pm 2.1} \\ \textbf{3.7 \pm 1.9} \\ \textbf{3.8 \pm 1} \\ \textbf{0.7 \pm 0.2} \\ \textbf{0.6 \pm 0.2} \\ \textbf{1.2 \pm 0.1} \end{array}$
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidnev	$\begin{array}{c} \textbf{stuzumab} \\ \textbf{24 h} \\ 19.1 \pm 1.5 \\ 50 \pm 5.4 \\ 4.2 \pm 0.7 \\ 7.8 \pm 3.6 \\ 10.1 \pm 1.3 \\ 8.8 \pm 2.3 \\ 1.4 \pm 0.3 \\ 1.3 \pm 0.3 \\ 1.9 \pm 0.5 \\ 4.9 \pm 0.9 \end{array}$	$\begin{array}{c} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \end{array}$	72 h 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3 9.5 ± 3.5 7.4 ± 2.8 0.9 ± 0.4 1.1 ± 0.5 2 ± 0.9 3.7 ± 1.2	96 h 8.9 ± 6.9 70.4 ± 25.8 2.3 ± 0.7 4.4 ± 2.5 9.8 ± 1.7 9.2 ± 1.2 1.1 ± 0.3 1.1 ± 0.2 2.3 ± 0.4 3.8 ± 1.8	$\begin{array}{c} \textbf{120 h} \\ \hline 7.6 \pm 5.7 \\ \hline 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidnev	$\begin{array}{c} \textbf{zuumab}\\ \textbf{24 h}\\ \hline 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ \end{array}$	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6 3.1 ± 2.9 1.3 ± 1.9 0.5 ± 0.3 1.5 ± 1 7.3 ± 0.7	$72 h$ 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1 0.9 ± 0.2 0.8 ± 0.2 1.5 ± 0.4 5.1 ± 0.8	$\begin{array}{c} \textbf{96 h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \end{array}$	$120 h$ 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1 3.7 ± 1.9 3.8 ± 1 0.7 ± 0.2 0.6 ± 0.2 1.2 ± 0.1 7.1 ± 5
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle	$\begin{array}{c} \textbf{xtuzumab}\\ \textbf{24 h}\\ 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 + 0.2\end{array}$	$\begin{array}{c} \textbf{48 h} \\ \textbf{9.1 \pm 9.5} \\ \textbf{63.5 \pm 15} \\ \textbf{3.2 \pm 1.9} \\ \textbf{3.9 \pm 3.1} \\ \textbf{13.2 \pm 4} \\ \textbf{11.5 \pm 2.5} \\ \textbf{1 \pm 0.5} \\ \textbf{1 \pm 0.3} \\ \textbf{2.5 \pm 1.1} \\ \textbf{3.8 \pm 2} \\ \textbf{0.7 \pm 0.5} \end{array}$	72 h 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3 9.5 ± 3.5 7.4 ± 2.8 0.9 ± 0.4 1.1 ± 0.5 2 ± 0.9 3.7 ± 1.2 0.8 ± 0.5	96 h 8.9 ± 6.9 70.4 ± 25.8 2.3 ± 0.7 4.4 ± 2.5 9.8 ± 1.7 9.2 ± 1.2 1.1 ± 0.3 1.1 ± 0.2 2.3 ± 0.4 3.8 ± 1.8 0.5 ± 0.2	120 h 7.6 ± 5.7 56.6 ± 12.7 2.6 ± 1.4 2.7 ± 1.8 8 ± 2.6 6.7 ± 2.4 0.6 ± 0.2 0.8 ± 0.2 1.6 ± 0.4 2.8 ± 1.2 0.4 ± 0.2	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle	$\begin{array}{c} \textbf{zuumab}\\ \textbf{24 h}\\ 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2 \end{array}$	$\begin{array}{c} 48 \text{ h} \\ 17.4 \pm 1 \\ 31.6 \pm 2.9 \\ 4.9 \pm 3.3 \\ 6.7 \pm 4.6 \\ 5.7 \pm 3.6 \\ 3.1 \pm 2.9 \\ 1.3 \pm 1.9 \\ 0.5 \pm 0.3 \\ 1.5 \pm 1 \\ 7.3 \pm 0.7 \\ 0.5 \pm 0.4 \end{array}$	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1 0.9 ± 0.2 0.8 ± 0.2 1.5 ± 0.4 5.1 ± 0.8 0.4 + 0.1	96 h 15 ± 0.8 37 ± 9.5 4.6 ± 1.1 6.3 ± 0.6 2.8 ± 0.9 3.5 ± 0.4 0.8 ± 0.2 0.5 ± 0.1 1.4 ± 0.3 4.4 ± 0.2 0.5 ± 0.2	$120 h$ 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1 3.7 ± 1.9 3.8 ± 1 0.7 ± 0.2 0.6 ± 0.2 1.2 ± 0.1 7.1 ± 5 0.5 ± 0.1
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone	$\begin{array}{c} \textbf{zturumab}\\ \textbf{24 h}\\ \hline 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 + 0.5\\ \end{array}$	$\begin{array}{c} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \end{array}$	72 h 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3 9.5 ± 3.5 7.4 ± 2.8 0.9 ± 0.4 1.1 ± 0.5 2 ± 0.9 3.7 ± 1.2 0.8 ± 0.5 3.1 ± 0.7	96 h 8.9 ± 6.9 70.4 ± 25.8 2.3 ± 0.7 4.4 ± 2.5 9.8 ± 1.7 9.2 ± 1.2 1.1 ± 0.3 1.1 ± 0.2 2.3 ± 0.4 3.8 ± 1.8 0.5 ± 0.2 4.2 ± 1.5	$\begin{array}{c} \textbf{120 h} \\ \hline \textbf{7.6} \pm 5.7 \\ \hline \textbf{56.6} \pm 12.7 \\ \textbf{2.6} \pm 1.4 \\ \textbf{2.7} \pm 1.8 \\ \textbf{8} \pm 2.6 \\ \textbf{6.7} \pm 2.4 \\ \textbf{0.6} \pm 0.2 \\ \textbf{0.6} \pm 0.2 \\ \textbf{1.6} \pm 0.4 \\ \textbf{2.8} \pm 1.2 \\ \textbf{0.4} \pm 0.2 \\ \textbf{3.6} \pm 1.7 \\ \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone	$\begin{array}{c} \textbf{turumab}\\ \textbf{24 h}\\ 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 + 0\end{array}$	$\begin{array}{c} 48 \text{ h} \\ 17.4 \pm 1 \\ 31.6 \pm 2.9 \\ 4.9 \pm 3.3 \\ 6.7 \pm 4.6 \\ 5.7 \pm 3.6 \\ 3.1 \pm 2.9 \\ 1.3 \pm 1.9 \\ 0.5 \pm 0.3 \\ 1.5 \pm 1 \\ 7.3 \pm 0.7 \\ 0.5 \pm 0.4 \\ 1.3 \pm 0.8 \end{array}$	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1 0.9 ± 0.2 0.8 ± 0.2 1.5 ± 0.4 5.1 ± 0.8 0.4 ± 0.1 1.3 ± 0.3	$\begin{array}{c} \textbf{96 h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.2 \\ 0.5 \pm 0.2 \\ 0.9 \pm 0.2 \end{array}$	$120 h$ 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1 3.7 ± 1.9 3.8 ± 1 0.7 ± 0.2 0.6 ± 0.2 1.2 ± 0.1 7.1 ± 5 0.5 ± 0.1 $1.4 + 0.3$
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin	$\begin{array}{c} \textbf{xtuzumab}\\ \textbf{24 h}\\ \hline 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 \pm 0.5\\ 8.4 \pm 2\end{array}$	$\begin{array}{c} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \end{array}$	72 h 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3 9.5 ± 3.5 7.4 ± 2.8 0.9 ± 0.4 1.1 ± 0.5 2 ± 0.9 3.7 ± 1.2 0.8 ± 0.5 3.1 ± 0.7 6.9 ± 0.5	$\begin{array}{c} 96 \text{ h} \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \end{array}$	120 h 7.6 ± 5.7 56.6 ± 12.7 2.6 ± 1.4 2.7 ± 1.8 8 ± 2.6 6.7 ± 2.4 0.6 ± 0.2 0.6 ± 0.2 1.6 ± 0.4 2.8 ± 1.2 0.4 ± 0.2 3.6 ± 1.7 4.1 ± 2.2	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin	$\begin{array}{c} \textbf{zumab}\\ \textbf{24 h}\\ \textbf{20.4 \pm 1.7}\\ \textbf{18.3 \pm 4.8}\\ \textbf{7.2 \pm 1}\\ \textbf{10 \pm 1.5}\\ \textbf{4.5 \pm 2}\\ \textbf{3.8 \pm 0.5}\\ \textbf{0.7 \pm 0.2}\\ \textbf{0.6 \pm 0.1}\\ \textbf{1.7 \pm 0.2}\\ \textbf{5.5 \pm 1.7}\\ \textbf{0.7 \pm 0.2}\\ \textbf{1.2 \pm 0}\\ \textbf{1.9 \pm 0.9} \end{array}$	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6 3.1 ± 2.9 1.3 ± 1.9 0.5 ± 0.3 1.5 ± 1 7.3 ± 0.7 0.5 ± 0.4 1.3 ± 0.8 2.4 ± 1.7	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1 0.9 ± 0.2 0.8 ± 0.2 1.5 ± 0.4 5.1 ± 0.8 0.4 ± 0.1 1.3 ± 0.3 2.1 ± 0.2	$\begin{array}{c} \textbf{96 h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.2 \\ 0.5 \pm 0.2 \\ 0.9 \pm 0.2 \\ 2.1 \pm 0.7 \end{array}$	$120 h$ 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1 3.7 ± 1.9 3.8 ± 1 0.7 ± 0.2 0.6 ± 0.2 1.2 ± 0.1 7.1 ± 5 0.5 ± 0.1 1.4 ± 0.3 3.1 ± 1.3
177Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue	$\begin{array}{c} \textbf{xtuzumab}\\ \textbf{24 h}\\ 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 \pm 0.5\\ 8.4 \pm 2\\ \textbf{24 h} \end{array}$	$\begin{array}{c} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ 48 \text{ h} \end{array}$	72 h 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3 9.5 ± 3.5 7.4 ± 2.8 0.9 ± 0.4 1.1 ± 0.5 2 ± 0.9 3.7 ± 1.2 0.8 ± 0.5 3.1 ± 0.7 6.9 ± 0.5 72 h	96 h 8.9 ± 6.9 70.4 ± 25.8 2.3 ± 0.7 4.4 ± 2.5 9.8 ± 1.7 9.2 ± 1.2 1.1 ± 0.3 1.1 ± 0.2 2.3 ± 0.4 3.8 ± 1.8 0.5 ± 0.2 4.2 ± 1.5 5.6 ± 1.2 96 h	120 h 7.6 ± 5.7 56.6 ± 12.7 2.6 ± 1.4 2.7 ± 1.8 8 ± 2.6 6.7 ± 2.4 0.6 ± 0.2 0.8 ± 0.2 1.6 ± 0.4 2.8 ± 1.2 0.4 ± 0.2 3.6 ± 1.7 4.1 ± 2.2 120 h	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue	$\begin{array}{c} \textbf{turumab}\\ \textbf{24 h}\\ 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 \pm 0\\ 1.9 \pm 0.9\\ \textbf{24 h} \end{array}$	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6 3.1 ± 2.9 1.3 ± 1.9 0.5 ± 0.3 1.5 ± 1 7.3 ± 0.7 0.5 ± 0.4 1.3 ± 1.9 4.5 ± 1 7.4 ± 0.7 0.5 ± 0.4 1.3 ± 0.8 2.4 ± 1.7 48 h	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1 0.9 ± 0.2 0.8 ± 0.2 1.5 ± 0.4 5.1 ± 0.8 0.4 ± 0.1 1.3 ± 0.3 2.1 ± 0.2 72 h	$\begin{array}{c} 96 \text{ h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.2 \\ 0.5 \pm 0.2 \\ 2.0 \pm 0.2 \\ 2.1 \pm 0.7 \\ \textbf{96 h} \end{array}$	120 h 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1 3.7 ± 1.9 3.8 ± 1 0.7 ± 0.2 0.6 ± 0.2 1.2 ± 0.1 7.1 ± 5 0.5 ± 0.1 1.4 ± 0.3 3.1 ± 1.3 120 h
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood	$\begin{array}{r} \textbf{stuzumab}\\ \textbf{24 h}\\ 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.3 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 \pm 0.5\\ 8.4 \pm 2\\ \textbf{24 h}\\ \textbf{2.6 \pm 0.3}\\ \end{array}$	$\begin{array}{c} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ \hline 48 \text{ h} \\ 7 \pm 7.5 \end{array}$	72 h 9.7 ± 5.2 62.4 ± 20 2.5 ± 0.9 5 ± 2.3 9.5 ± 3.5 7.4 ± 2.8 0.9 ± 0.4 1.1 ± 0.5 2 ± 0.9 3.7 ± 1.2 0.8 ± 0.5 3.1 ± 0.7 6.9 ± 0.5 $72 h$ 6.4 ± 4	$\begin{array}{c} \textbf{96 h} \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \textbf{96 h} \\ \textbf{7}.9 \pm 6.8 \end{array}$	$\begin{array}{c} \textbf{120 h} \\ \hline 7.6 \pm 5.7 \\ \hline 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline \textbf{120 h} \\ \textbf{7.5 \pm 5.8} \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood	$\begin{array}{c} \textbf{turumab}\\ \textbf{24 h}\\ 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 \pm 0\\ 1.9 \pm 0.9\\ \textbf{24 h}\\ 0.9 \pm 0.2\end{array}$	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6 3.1 ± 2.9 1.3 ± 1.9 0.5 ± 0.3 1.5 ± 1 7.3 ± 0.7 0.5 ± 0.4 1.3 ± 0.8 2.4 ± 1.7 48 h 1.8 ± 0.2	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1 0.9 ± 0.2 0.8 ± 0.2 1.5 ± 0.4 5.1 ± 0.8 0.4 ± 0.1 1.3 ± 0.3 2.1 ± 0.2 72 h 1.8 ± 0.5	$\begin{array}{c} \textbf{96 h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.2 \\ 0.9 \pm 0.2 \\ 2.1 \pm 0.7 \\ \textbf{96 h} \\ \textbf{2.5 \pm 0.7} \end{array}$	$120 h$ 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1 3.7 ± 1.9 3.8 ± 1 0.7 ± 0.2 0.6 ± 0.2 1.2 ± 0.1 7.1 ± 5 0.5 ± 0.1 1.4 ± 0.3 3.1 ± 1.3 $120 h$
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Heart	$\begin{array}{r} \textbf{stuzumab}\\ \hline \textbf{24 h}\\ \hline 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 \pm 0.5\\ 8.4 \pm 2\\ \hline \textbf{24 h}\\ 2.6 \pm 0.3\\ 11.8 \pm 2.4\\ \end{array}$	$\begin{array}{c} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ \hline 48 \text{ h} \\ 7 \pm 7.5 \\ 20 \pm 13.1 \end{array}$	$\begin{array}{c} 72 h \\ 9.7 \pm 5.2 \\ 62.4 \pm 20 \\ 2.5 \pm 0.9 \\ 5 \pm 2.3 \\ 9.5 \pm 3.5 \\ 7.4 \pm 2.8 \\ 0.9 \pm 0.4 \\ 1.1 \pm 0.5 \\ 2 \pm 0.9 \\ 3.7 \pm 1.2 \\ 0.8 \pm 0.5 \\ 3.1 \pm 0.7 \\ 6.9 \pm 0.5 \\ \hline 72 h \\ 6.4 \pm 4 \\ 25.1 \pm 11.9 \end{array}$	$\begin{array}{c} \textbf{96 h} \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \hline \textbf{96 h} \\ \hline \textbf{7}.9 \pm 6.8 \\ 31.3 \pm 15.4 \\ \end{array}$	$\begin{array}{c} \textbf{120 h} \\ \hline 7.6 \pm 5.7 \\ \hline 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline \textbf{120 h} \\ \hline 7.5 \pm 5.8 \\ 21.7 \pm 12.4 \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Heart	$\begin{array}{c} \textbf{uzumab}\\ \textbf{24 h}\\ 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 \pm 0\\ 1.9 \pm 0.9\\ \hline \textbf{24 h}\\ 0.9 \pm 0.2\\ 2.5 \pm 0.8\\ \end{array}$	$\begin{array}{c} \textbf{48 h} \\ 17.4 \pm 1 \\ 31.6 \pm 2.9 \\ 4.9 \pm 3.3 \\ 6.7 \pm 4.6 \\ 5.7 \pm 3.6 \\ 3.1 \pm 2.9 \\ 1.3 \pm 1.9 \\ 0.5 \pm 0.3 \\ 1.5 \pm 1 \\ 7.3 \pm 0.7 \\ 0.5 \pm 0.4 \\ 1.3 \pm 0.8 \\ 2.4 \pm 1.7 \\ \textbf{48 h} \\ 1.8 \pm 0.2 \\ 6.5 \pm 4.5 \end{array}$	$\begin{array}{c} \textbf{72 h} \\ \textbf{18.1 \pm 2.8} \\ \textbf{32.1 \pm 7.4} \\ \textbf{5.8 \pm 1.6} \\ \textbf{7.1 \pm 2.3} \\ \textbf{5.7 \pm 2.5} \\ \textbf{3.2 \pm 1} \\ \textbf{0.9 \pm 0.2} \\ \textbf{0.9 \pm 0.2} \\ \textbf{1.5 \pm 0.4} \\ \textbf{5.1 \pm 0.8} \\ \textbf{0.4 \pm 0.1} \\ \textbf{1.3 \pm 0.3} \\ \textbf{2.1 \pm 0.2} \\ \textbf{72 h} \\ \textbf{1.8 \pm 0.5} \\ \textbf{5.5 \pm 2} \end{array}$	$\begin{array}{c} \textbf{96 h} \\ \textbf{15 \pm 0.8} \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.2 \\ 0.5 \pm 0.2 \\ 0.9 \pm 0.2 \\ 2.1 \pm 0.7 \\ \textbf{96 h} \\ 2.5 \pm 0.7 \\ \textbf{8} \pm 2.9 \end{array}$	$\begin{array}{c} 120 \text{ h} \\ 14.7 \pm 0.7 \\ 37.4 \pm 10.3 \\ 5.4 \pm 0.6 \\ 6 \pm 2.1 \\ 3.7 \pm 1.9 \\ 3.8 \pm 1 \\ 0.7 \pm 0.2 \\ 0.6 \pm 0.2 \\ 1.2 \pm 0.1 \\ 7.1 \pm 5 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 3.1 \pm 1.3 \\ \hline 120 \text{ h} \\ 2.5 \pm 0.7 \\ 7 \pm 2.1 \end{array}$
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Heart Tumor/Lung	$\begin{array}{r} \textbf{stuzumab}\\ \hline \textbf{24 h}\\ \hline 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 \pm 0.5\\ 8.4 \pm 2\\ \hline \textbf{24 h}\\ \hline \textbf{2.6 \pm 0.3}\\ 11.8 \pm 2.4\\ 6.4 \pm 3\\ \end{array}$	48 h 9.1 ± 9.5 63.5 ± 15 3.2 ± 1.9 3.9 ± 3.1 13.2 ± 4 11.5 ± 2.5 1 ± 0.3 2.5 ± 1.1 3.8 ± 2 0.7 ± 0.5 4 ± 0.6 6.8 ± 2.9 48 h 7 ± 7.5 20 ± 13.1 16.3 ± 13.5	$\begin{array}{c} 72 h \\ 9.7 \pm 5.2 \\ 62.4 \pm 20 \\ 2.5 \pm 0.9 \\ 5 \pm 2.3 \\ 9.5 \pm 3.5 \\ 7.4 \pm 2.8 \\ 0.9 \pm 0.4 \\ 1.1 \pm 0.5 \\ 2 \pm 0.9 \\ 3.7 \pm 1.2 \\ 0.8 \pm 0.5 \\ 3.1 \pm 0.7 \\ 6.9 \pm 0.5 \\ \hline 72 h \\ 6.4 \pm 4 \\ 25.1 \pm 11.9 \\ 12.5 \pm 7 \end{array}$	$\begin{array}{c} 96 h \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \hline \textbf{96 h} \\ \textbf{7}.9 \pm 6.8 \\ 31.3 \pm 15.4 \\ 16 \pm 10.7 \\ \end{array}$	$\begin{array}{c} \textbf{120 h} \\ \hline 7.6 \pm 5.7 \\ 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline \textbf{120 h} \\ 7.5 \pm 5.8 \\ 21.7 \pm 12.4 \\ 21 \pm 14.9 \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Heart Tumor/Lung	$\begin{array}{c} \textbf{turumab}\\ \textbf{24 h}\\ \hline 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 \pm 0\\ 1.9 \pm 0.9\\ \hline \textbf{24 h}\\ 0.9 \pm 0.2\\ 2.5 \pm 0.8\\ 1.8 \pm 0.6\\ \end{array}$	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6 3.1 ± 2.9 1.3 ± 1.9 0.5 ± 0.3 1.5 ± 1 7.3 ± 0.7 0.5 ± 0.4 1.3 ± 0.8 2.4 ± 1.7 48 h 1.8 ± 0.2 6.5 ± 4.5 4.7 ± 3.3	$\begin{array}{c} \textbf{72 h} \\ 18.1 \pm 2.8 \\ 32.1 \pm 7.4 \\ 5.8 \pm 1.6 \\ 7.1 \pm 2.3 \\ 5.7 \pm 2.5 \\ 3.2 \pm 1 \\ 0.9 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.5 \pm 0.4 \\ 5.1 \pm 0.8 \\ 0.4 \pm 0.1 \\ 1.3 \pm 0.3 \\ 2.1 \pm 0.2 \\ \hline \textbf{72 h} \\ 1.8 \pm 0.5 \\ 5.5 \pm 2 \\ 4.5 \pm 1.8 \\ \end{array}$	$\begin{array}{c} \textbf{96 h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.2 \\ 0.9 \pm 0.2 \\ 2.1 \pm 0.7 \\ \textbf{96 h} \\ 2.5 \pm 0.7 \\ \textbf{8} \pm 2.9 \\ 5.9 \pm 1.6 \end{array}$	$\begin{array}{c} 120 \text{ h} \\ 14.7 \pm 0.7 \\ 37.4 \pm 10.3 \\ 5.4 \pm 0.6 \\ 6 \pm 2.1 \\ 3.7 \pm 1.9 \\ 3.8 \pm 1 \\ 0.7 \pm 0.2 \\ 0.6 \pm 0.2 \\ 1.2 \pm 0.1 \\ 7.1 \pm 5 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 3.1 \pm 1.3 \\ \hline 120 \text{ h} \\ 2.5 \pm 0.7 \\ 7 \pm 2.1 \\ 6.2 \pm 2.8 \end{array}$
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Liver	$\begin{array}{r} \textbf{tzumab}\\ \textbf{24 h}\\ 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 \pm 0.5\\ 8.4 \pm 2\\ \textbf{24 h}\\ \textbf{2.6 \pm 0.3}\\ 11.8 \pm 2.4\\ 6.4 \pm 3\\ 4.9 \pm 0.8\\ \end{array}$	$\begin{array}{c} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ \hline \begin{array}{c} 48 \text{ h} \\ 7 \pm 7.5 \\ 20 \pm 13.1 \\ 16.3 \pm 13.5 \\ 4.8 \pm 1.9 \\ \end{array}$	$\begin{array}{c} 72 h \\ 9.7 \pm 5.2 \\ 62.4 \pm 20 \\ 2.5 \pm 0.9 \\ 5 \pm 2.3 \\ 9.5 \pm 3.5 \\ 7.4 \pm 2.8 \\ 0.9 \pm 0.4 \\ 1.1 \pm 0.5 \\ 2 \pm 0.9 \\ 3.7 \pm 1.2 \\ 0.8 \pm 0.5 \\ 3.1 \pm 0.7 \\ 6.9 \pm 0.5 \\ \hline 72 h \\ 6.4 \pm 4 \\ 25.1 \pm 11.9 \\ 12.5 \pm 7 \\ 6.5 \pm 3.2 \end{array}$	$\begin{array}{c} \textbf{96 h} \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \hline \textbf{96 h} \\ \hline 7.9 \pm 6.8 \\ 31.3 \pm 15.4 \\ 16 \pm 10.7 \\ 7.2 \pm 2.9 \\ \end{array}$	$\begin{array}{c} 120 \ h \\ \hline 7.6 \pm 5.7 \\ 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline 120 \ h \\ \hline 7.5 \pm 5.8 \\ 21.7 \pm 12.4 \\ 21 \pm 14.9 \\ 7.1 \pm 2.8 \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Liver	$\begin{array}{c} \textbf{zuumab}\\ \textbf{24} \\ \textbf{20.4} \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 \pm 0\\ 1.9 \pm 0.9\\ \hline \textbf{24} \\ \textbf{h}\\ 0.9 \pm 0.2\\ 2.5 \pm 0.8\\ 1.8 \pm 0.6\\ 4.1 \pm 2.1\\ \end{array}$	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6 3.1 ± 2.9 1.3 ± 1.9 0.5 ± 0.3 1.5 ± 1 7.3 ± 0.7 0.5 ± 0.4 1.3 ± 0.7 0.4 1.3 ± 0.4 1.4 ± 0.2 6.5 ± 4.5 4.7 ± 3.3 5.6 ± 3.5	$\begin{array}{c} \textbf{72 h} \\ 18.1 \pm 2.8 \\ 32.1 \pm 7.4 \\ 5.8 \pm 1.6 \\ 7.1 \pm 2.3 \\ 5.7 \pm 2.5 \\ 3.2 \pm 1 \\ 0.9 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.5 \pm 0.4 \\ 5.1 \pm 0.8 \\ 0.4 \pm 0.1 \\ 1.3 \pm 0.3 \\ 2.1 \pm 0.2 \\ \hline \textbf{72 h} \\ 1.8 \pm 0.5 \\ 5.5 \pm 2 \\ 4.5 \pm 1.8 \\ 5.7 \pm 2.9 \end{array}$	$\begin{array}{c} \textbf{96 h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 2.5 \pm 0.7 \\ \textbf{96 h} \\ 2.5 \pm 0.7 \\ 8 \pm 2.9 \\ 5.9 \pm 1.6 \\ 13.4 \pm 5.7 \end{array}$	$120 h$ 14.7 ± 0.7 37.4 ± 10.3 5.4 ± 0.6 6 ± 2.1 3.7 ± 1.9 3.8 ± 1 0.7 ± 0.2 0.6 ± 0.2 1.2 ± 0.1 7.1 ± 5 0.5 ± 0.1 1.4 ± 0.3 3.1 ± 1.3 $120 h$ 2.5 ± 0.7 7 ± 2.1 6.2 ± 2.8 10.2 ± 6
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Liver Tumor/Liver Tumor/Spleen	$\begin{array}{r} \textbf{tuzumab}\\ \textbf{24 h}\\ 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 \pm 0.5\\ 8.4 \pm 2\\ \textbf{24 h}\\ 2.6 \pm 0.3\\ 11.8 \pm 2.4\\ 6.4 \pm 3\\ 4.9 \pm 0.8\\ 5.7 \pm 1.6\\ \end{array}$	$\begin{array}{r} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ \hline 48 \text{ h} \\ 7 \pm 7.5 \\ 20 \pm 13.1 \\ 16.3 \pm 13.5 \\ 4.8 \pm 1.9 \\ 5.5 \pm 1.8 \\ \end{array}$	$\begin{array}{c} \textbf{72 h} \\ 9.7 \pm 5.2 \\ 62.4 \pm 20 \\ 2.5 \pm 0.9 \\ 5 \pm 2.3 \\ 9.5 \pm 3.5 \\ 7.4 \pm 2.8 \\ 0.9 \pm 0.4 \\ 1.1 \pm 0.5 \\ 2 \pm 0.9 \\ 3.7 \pm 1.2 \\ 0.8 \pm 0.5 \\ 3.1 \pm 0.7 \\ 6.9 \pm 0.5 \\ \textbf{72 h} \\ \hline \textbf{6.4 \pm 4} \\ 25.1 \pm 11.9 \\ 12.5 \pm 7 \\ 6.5 \pm 3.2 \\ 8.5 \pm 4.2 \\ \end{array}$	$\begin{array}{c} 96 h \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \hline \begin{array}{c} 96 h \\ 7.9 \pm 6.8 \\ 31.3 \pm 15.4 \\ 16 \pm 10.7 \\ 7.2 \pm 2.9 \\ 7.6 \pm 3 \end{array}$	$\begin{array}{c} 120 \text{ h} \\ \hline 7.6 \pm 5.7 \\ \hline 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline 120 \text{ h} \\ \hline 7.5 \pm 5.8 \\ 21.7 \pm 12.4 \\ 21 \pm 14.9 \\ 7.1 \pm 2.8 \\ 8.4 \pm 3.6 \\ \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Tissue Tumor/Liver Tumor/Liver Tumor/Liver	$\begin{array}{c} \textbf{turumab}\\ \textbf{24 h}\\ 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 \pm 0\\ 1.9 \pm 0.9\\ \hline \textbf{24 h}\\ 0.9 \pm 0.2\\ 2.5 \pm 0.8\\ 1.8 \pm 0.6\\ 4.1 \pm 2.1\\ 4.8 \pm 1.4\\ \end{array}$	48 h 17.4 ± 1 31.6 ± 2.9 4.9 ± 3.3 6.7 ± 4.6 5.7 ± 3.6 3.1 ± 2.9 1.3 ± 1.9 0.5 ± 0.3 1.5 ± 1 7.3 ± 0.7 0.5 ± 0.4 1.3 ± 1.9 0.5 ± 0.3 1.5 ± 1 7.3 ± 0.7 0.5 ± 0.4 1.3 ± 0.8 2.4 ± 1.7 48 h 1.8 ± 0.2 6.5 ± 4.5 5.6 ± 3.5 10 ± 9.4	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1 0.9 ± 0.2 0.8 ± 0.2 1.5 ± 0.4 5.1 ± 0.8 0.4 ± 0.1 1.3 ± 0.3 2.1 ± 0.2 72 h 1.8 ± 0.5 5.5 ± 2 4.5 ± 1.8 5.7 ± 2.9 9.9 ± 3.8	$\begin{array}{c} 96 \ h \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.2 \\ 2.1 \pm 0.7 \\ \hline \begin{array}{c} 96 \ h \\ 2.5 \pm 0.7 \\ 8 \pm 2.9 \\ 5.9 \pm 1.6 \\ 13.4 \pm 5.7 \\ 10.6 \pm 3 \end{array}$	$\begin{array}{c} 120 \text{ h} \\ 14.7 \pm 0.7 \\ 37.4 \pm 10.3 \\ 5.4 \pm 0.6 \\ 6 \pm 2.1 \\ 3.7 \pm 1.9 \\ 3.8 \pm 1 \\ 0.7 \pm 0.2 \\ 0.6 \pm 0.2 \\ 1.2 \pm 0.1 \\ 7.1 \pm 5 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 3.1 \pm 1.3 \\ \hline 120 \text{ h} \\ 2.5 \pm 0.7 \\ 7 \pm 2.1 \\ 6.2 \pm 2.8 \\ 10.2 \pm 6 \\ 9.8 \pm 3.8 \\ \end{array}$
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Liver Tumor/Liver Tumor/Spleen Tumor/Stomach	$\begin{array}{r} \textbf{xuumab}\\ \textbf{24 h}\\ 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 \pm 0.5\\ 8.4 \pm 2\\ \textbf{24 h}\\ 2.6 \pm 0.3\\ 11.8 \pm 2.4\\ 6.4 \pm 3\\ 4.9 \pm 0.8\\ 5.7 \pm 1.6\\ 36.2 \pm 8\\ \end{array}$	$\begin{array}{r} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ 48 \text{ h} \\ 7 \pm 7.5 \\ 20 \pm 13.1 \\ 16.3 \pm 13.5 \\ 4.8 \pm 1.9 \\ 5.5 \pm 1.8 \\ 66.8 \pm 40.3 \end{array}$	$\begin{array}{c} 72 h \\ 9.7 \pm 5.2 \\ 62.4 \pm 20 \\ 2.5 \pm 0.9 \\ 5 \pm 2.3 \\ 9.5 \pm 3.5 \\ 7.4 \pm 2.8 \\ 0.9 \pm 0.4 \\ 1.1 \pm 0.5 \\ 2 \pm 0.9 \\ 3.7 \pm 1.2 \\ 0.8 \pm 0.5 \\ 3.1 \pm 0.7 \\ 6.9 \pm 0.5 \\ \hline 72 h \\ 6.4 \pm 4 \\ 25.1 \pm 11.9 \\ 12.5 \pm 7 \\ 6.5 \pm 3.2 \\ 8.5 \pm 4.2 \\ 71.7 \pm 39.7 \end{array}$	$\begin{array}{c} 96 \text{ h} \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \hline \begin{array}{c} 96 \text{ h} \\ 7.9 \pm 6.8 \\ 31.3 \pm 15.4 \\ 16 \pm 10.7 \\ 7.2 \pm 2.9 \\ 7.6 \pm 3 \\ 64.6 \pm 29.5 \\ \end{array}$	$\begin{array}{c} 120 \text{ h} \\ \hline 7.6 \pm 5.7 \\ 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline 120 \text{ h} \\ \hline 7.5 \pm 5.8 \\ 21.7 \pm 12.4 \\ 21 \pm 14.9 \\ 7.1 \pm 2.8 \\ 8.4 \pm 3.6 \\ 92.8 \pm 38.7 \\ \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Liver Tumor/Liver Tumor/Spleen Tumor/Stomach	$\begin{array}{c} \textbf{zuumab}\\ \textbf{24 h}\\ 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 \pm 0\\ 1.9 \pm 0.9\\ \hline \textbf{24 h}\\ \textbf{0.9 \pm 0.2}\\ 2.5 \pm 0.8\\ 1.8 \pm 0.6\\ 4.1 \pm 2.1\\ 4.8 \pm 1.4\\ 2.7.4 \pm 11.4\\ \end{array}$	$\begin{array}{c} 48 \text{ h} \\ 17.4 \pm 1 \\ 31.6 \pm 2.9 \\ 4.9 \pm 3.3 \\ 6.7 \pm 4.6 \\ 5.7 \pm 3.6 \\ 3.1 \pm 2.9 \\ 1.3 \pm 1.9 \\ 0.5 \pm 0.3 \\ 1.5 \pm 1 \\ 7.3 \pm 0.7 \\ 0.5 \pm 0.4 \\ 1.3 \pm 0.8 \\ 2.4 \pm 1.7 \\ \textbf{48 h} \\ 1.8 \pm 0.2 \\ 6.5 \pm 4.5 \\ 4.7 \pm 3.3 \\ 5.6 \pm 3.5 \\ 10 \pm 9.4 \\ 25.3 \pm 37.9 \end{array}$	$\begin{array}{c} 72 h \\ 18.1 \pm 2.8 \\ 32.1 \pm 7.4 \\ 5.8 \pm 1.6 \\ 7.1 \pm 2.3 \\ 5.7 \pm 2.5 \\ 3.2 \pm 1 \\ 0.9 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.5 \pm 0.4 \\ 5.1 \pm 0.8 \\ 0.4 \pm 0.1 \\ 1.3 \pm 0.3 \\ 2.1 \pm 0.2 \\ \textbf{72 h} \\ 1.8 \pm 0.5 \\ 5.5 \pm 2 \\ 4.5 \pm 1.8 \\ 5.7 \pm 2.9 \\ 9.9 \pm 3.8 \\ 34.6 \pm 11.6 \end{array}$	$\begin{array}{r} 96 \text{ h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.2 \\ 0.5 \pm 0.2 \\ 2.1 \pm 0.7 \\ \textbf{96 h} \\ 2.5 \pm 0.7 \\ 8 \pm 2.9 \\ 5.9 \pm 1.6 \\ 13.4 \pm 5.7 \\ 10.6 \pm 3 \\ 4.8 \pm 16.1 \end{array}$	$\begin{array}{c} 120 \text{ h} \\ 14.7 \pm 0.7 \\ 37.4 \pm 10.3 \\ 5.4 \pm 0.6 \\ 6 \pm 2.1 \\ 3.7 \pm 1.9 \\ 3.8 \pm 1 \\ 0.7 \pm 0.2 \\ 0.6 \pm 0.2 \\ 1.2 \pm 0.1 \\ 7.1 \pm 5 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 3.1 \pm 1.3 \\ 120 \text{ h} \\ 2.5 \pm 0.7 \\ 7 \pm 2.1 \\ 6.2 \pm 2.8 \\ 10.2 \pm 6 \\ 9.8 \pm 3.8 \\ 52.1 \pm 20.8 \end{array}$
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Tissue Tumor/Heart Tumor/Lung Tumor/Spleen Tumor/Spleen Tumor/Ll	$\begin{array}{r} \textbf{stuzumab}\\ \textbf{24 h}\\ 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 \pm 0.5\\ 8.4 \pm 2\\ \textbf{24 h}\\ \textbf{2.6 \pm 0.3\\ 11.8 \pm 2.4\\ 6.4 \pm 3\\ 4.9 \pm 0.8\\ 5.7 \pm 1.6\\ 36.2 \pm 8\\ 40 \pm 12\\ \end{array}$	$\begin{array}{c} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ \hline 48 \text{ h} \\ 7 \pm 7.5 \\ 20 \pm 13.1 \\ 16.3 \pm 13.5 \\ 4.8 \pm 1.9 \\ 5.5 \pm 1.8 \\ 66.8 \pm 40.3 \\ 64.8 \pm 24.3 \\ \end{array}$	$\begin{array}{c} 72 h \\ 9.7 \pm 5.2 \\ 62.4 \pm 20 \\ 2.5 \pm 0.9 \\ 5 \pm 2.3 \\ 9.5 \pm 3.5 \\ 7.4 \pm 2.8 \\ 0.9 \pm 0.4 \\ 1.1 \pm 0.5 \\ 2 \pm 0.9 \\ 3.7 \pm 1.2 \\ 0.8 \pm 0.5 \\ 3.1 \pm 0.7 \\ 6.9 \pm 0.5 \\ \hline 72 h \\ 6.4 \pm 4 \\ 25.1 \pm 11.9 \\ 12.5 \pm 7 \\ 6.5 \pm 3.2 \\ 8.5 \pm 4.2 \\ 71.7 \pm 39.7 \\ 55.2 \pm 31.4 \end{array}$	$\begin{array}{c} \textbf{96 h} \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \hline \textbf{96 h} \\ \hline \textbf{7}.9 \pm 6.8 \\ 31.3 \pm 15.4 \\ 16 \pm 10.7 \\ 7.2 \pm 2.9 \\ 7.6 \pm 3 \\ 64.6 \pm 29.5 \\ 65.2 \pm 27.9 \\ \end{array}$	$\begin{array}{c} \textbf{120 h} \\ \hline 7.6 \pm 5.7 \\ 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline \textbf{120 h} \\ 7.5 \pm 5.8 \\ 21.7 \pm 12.4 \\ 21.1 \pm 14.9 \\ 7.1 \pm 2.8 \\ 8.4 \pm 3.6 \\ 92.8 \pm 3.7 \\ 69.9 \pm 21.9 \\ \end{array}$	177 Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Tissue Tumor/Heart Tumor/Lung Tumor/Spleen Tumor/Spleen Tumor/Stomach	$\begin{array}{r} \textbf{turumab}\\ \textbf{24 h}\\ 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 \pm 0\\ 1.9 \pm 0.9\\ \hline \textbf{24 h}\\ 0.9 \pm 0.9\\ \hline \textbf{24 h}\\ 0.9 \pm 0.8\\ 1.8 \pm 0.6\\ 4.1 \pm 2.1\\ 4.8 \pm 1.4\\ 27.4 \pm 11.4\\ 31.9 \pm 10\\ \end{array}$	$\begin{array}{c} 48 & h \\ \hline 17.4 \pm 1 \\ 31.6 \pm 2.9 \\ 4.9 \pm 3.3 \\ 6.7 \pm 4.6 \\ 5.7 \pm 3.6 \\ 3.1 \pm 2.9 \\ 1.3 \pm 1.9 \\ 0.5 \pm 0.3 \\ 1.5 \pm 1 \\ 7.3 \pm 0.7 \\ 0.5 \pm 0.4 \\ 1.3 \pm 0.7 \\ 0.5 \pm 0.4 \\ 1.3 \pm 0.8 \\ 2.4 \pm 1.7 \\ \hline 48 & h \\ 1.8 \pm 0.2 \\ 6.5 \pm 4.5 \\ 4.7 \pm 3.3 \\ 5.6 \pm 3.5 \\ 10 \pm 9.4 \\ 25.3 \pm 37.9 \\ 63.6 \pm 39.3 \\ \end{array}$	72 h 18.1 ± 2.8 32.1 ± 7.4 5.8 ± 1.6 7.1 ± 2.3 5.7 ± 2.5 3.2 ± 1 0.9 ± 0.2 0.8 ± 0.2 1.5 ± 0.4 5.1 ± 0.8 0.4 ± 0.1 1.3 ± 0.3 2.1 ± 0.2 72 h 1.8 ± 0.5 5.5 ± 2 4.5 ± 1.8 5.7 ± 2.9 9.9 ± 3.8 34.6 ± 11.6 42 ± 13	$\begin{array}{c} \textbf{96 h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.2 \\ 0.5 \pm 0.2 \\ 2.1 \pm 0.7 \\ \textbf{96 h} \\ 2.5 \pm 0.7 \\ \textbf{8} \pm 2.9 \\ 5.9 \pm 1.6 \\ 13.4 \pm 5.7 \\ 10.6 \pm 3 \\ 48.8 \pm 16.1 \\ 72.8 \pm 20.8 \end{array}$	$\begin{array}{c} 120 \text{ h} \\ 14.7 \pm 0.7 \\ 37.4 \pm 10.3 \\ 5.4 \pm 0.6 \\ 6 \pm 2.1 \\ 3.7 \pm 1.9 \\ 3.8 \pm 1 \\ 0.7 \pm 0.2 \\ 0.6 \pm 0.2 \\ 1.2 \pm 0.1 \\ 7.1 \pm 5 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 3.1 \pm 1.3 \\ \hline 120 \text{ h} \\ 2.5 \pm 0.7 \\ 7 \pm 2.1 \\ 6.2 \pm 2.8 \\ 10.2 \pm 6 \\ 9.8 \pm 3.8 \\ 52.1 \pm 20.8 \\ 61.7 \pm 24.7 \end{array}$
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Small Intestine Small Intestine Small Intestine Small Intestine Small Intestine Stomach Large Intestine Stomach Tumor/Tissue Tumor/Ispleen Tumor/Sumach Tumor/Sl	$\begin{array}{r} \textbf{stuzumab}\\ \hline \textbf{24 h}\\ \hline 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 \pm 0.5\\ 8.4 \pm 2\\ \hline \textbf{24 h}\\ \hline \textbf{2.6 \pm 0.3}\\ 11.8 \pm 2.4\\ 6.4 \pm 3\\ 4.9 \pm 0.8\\ 5.7 \pm 1.6\\ 36.2 \pm 8\\ 40 \pm 12\\ 27 \pm 7.2\\ \end{array}$	$\begin{array}{c} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ \hline \textbf{48 h} \\ 7 \pm 7.5 \\ 20 \pm 13.1 \\ 16.3 \pm 13.5 \\ 4.8 \pm 1.9 \\ 5.5 \pm 1.8 \\ 66.8 \pm 40.3 \\ 64.8 \pm 24.3 \\ 25.1 \pm 12.4 \\ \end{array}$	$\begin{array}{c} \textbf{72 h} \\ 9.7 \pm 5.2 \\ 62.4 \pm 20 \\ 2.5 \pm 0.9 \\ 5 \pm 2.3 \\ 9.5 \pm 3.5 \\ 7.4 \pm 2.8 \\ 0.9 \pm 0.4 \\ 1.1 \pm 0.5 \\ 2 \pm 0.9 \\ 3.7 \pm 1.2 \\ 0.8 \pm 0.5 \\ 3.1 \pm 0.7 \\ 6.9 \pm 0.5 \\ \textbf{72 h} \\ 6.4 \pm 4 \\ 25.1 \pm 11.9 \\ 12.5 \pm 7 \\ 6.5 \pm 3.2 \\ 8.5 \pm 4.2 \\ 71.7 \pm 39.7 \\ 55.2 \pm 31.4 \\ 31.5 \pm 17.3 \end{array}$	$\begin{array}{c} 96 h \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \hline \textbf{96 h} \\ \textbf{7.9 \pm 6.8 \\ 31.3 \pm 15.4 \\ 16 \pm 10.7 \\ 7.2 \pm 2.9 \\ 7.6 \pm 3 \\ 64.6 \pm 29.5 \\ 65.2 \pm 27.9 \\ 31 \pm 12.4 \\ \end{array}$	$\begin{array}{c} \textbf{120 h} \\ \hline 7.6 \pm 5.7 \\ 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline \textbf{120 h} \\ 7.5 \pm 5.8 \\ 21.7 \pm 12.4 \\ 21 \pm 14.9 \\ 7.1 \pm 2.8 \\ 8.4 \pm 3.6 \\ 92.8 \pm 38.7 \\ 69.9 \pm 21.9 \\ 34.7 \pm 11.5 \\ \end{array}$	177 Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Small Intestine Small Intestine Small Intestine Small Intestine Small Intestine Stomach Large Intestine Stomach Muscle Bone Skin Tumor/Tissue Tumor/Heart Tumor/Lung Tumor/Sleen Tumor/Sl	$\begin{array}{c} \textbf{turumab}\\ \textbf{24 h}\\ \hline \textbf{20.4 \pm 1.7}\\ \textbf{10 \pm 1.5}\\ \textbf{4.5 \pm 2}\\ \textbf{3.8 \pm 0.5}\\ \textbf{0.7 \pm 0.2}\\ \textbf{0.6 \pm 0.1}\\ \textbf{1.7 \pm 0.2}\\ \textbf{5.5 \pm 1.7}\\ \textbf{0.7 \pm 0.2}\\ \textbf{1.9 \pm 0.9}\\ \textbf{24 h}\\ \textbf{0.9 \pm 0.2}\\ \textbf{2.5 \pm 0.8}\\ \textbf{1.8 \pm 0.6}\\ \textbf{4.1 \pm 2.1}\\ \textbf{4.8 \pm 1.4}\\ \textbf{27.4 \pm 11.4}\\ \textbf{31.9 \pm 10}\\ \textbf{10.7 \pm 3.1}\\ \end{array}$	$\begin{array}{c} 48 \ h \\ 17.4 \pm 1 \\ 31.6 \pm 2.9 \\ 4.9 \pm 3.3 \\ 6.7 \pm 4.6 \\ 5.7 \pm 3.6 \\ 3.1 \pm 2.9 \\ 1.3 \pm 1.9 \\ 0.5 \pm 0.3 \\ 1.5 \pm 1 \\ 7.3 \pm 0.7 \\ 0.5 \pm 0.4 \\ 1.3 \pm 0.8 \\ 2.4 \pm 1.7 \\ \hline 48 \ h \\ 1.8 \pm 0.2 \\ 6.5 \pm 4.5 \\ 4.7 \pm 3.3 \\ 5.6 \pm 3.5 \\ 10 \pm 9.4 \\ 25.3 \pm 3.79 \\ 6.3 \epsilon \pm 3.93 \\ 20.8 \pm 14.2 \end{array}$	$\begin{array}{c} \textbf{72 h} \\ 18.1 \pm 2.8 \\ 32.1 \pm 7.4 \\ 5.8 \pm 1.6 \\ 7.1 \pm 2.3 \\ 5.7 \pm 2.5 \\ 3.2 \pm 1 \\ 0.9 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.5 \pm 0.4 \\ 5.1 \pm 0.8 \\ 0.4 \pm 0.1 \\ 1.3 \pm 0.3 \\ 2.1 \pm 0.2 \\ \textbf{72 h} \\ \textbf{1.8 \pm 0.5} \\ 5.5 \pm 2 \\ \textbf{4.5 \pm 1.8} \\ 5.7 \pm 2.9 \\ 9.9 \pm 3.8 \\ 34.6 \pm 11.6 \\ 42 \pm 13 \\ 20.8 \pm 7.3 \\ \end{array}$	$\begin{array}{c} \textbf{96 h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.2 \\ 0.9 \pm 0.2 \\ 2.1 \pm 0.7 \\ \textbf{96 h} \\ \textbf{2.5 \pm 0.7 \\ 8 \pm 2.9 \\ 5.9 \pm 1.6 \\ 13.4 \pm 5.7 \\ 10.6 \pm 3 \\ 48.8 \pm 16.1 \\ 72.8 \pm 20.8 \\ 2.7.1 \pm 9.2 \end{array}$	$\begin{array}{c} 120 \ h \\ 14.7 \pm 0.7 \\ 37.4 \pm 10.3 \\ 5.4 \pm 0.6 \\ 6 \pm 2.1 \\ 3.7 \pm 1.9 \\ 3.8 \pm 1 \\ 0.7 \pm 0.2 \\ 0.6 \pm 0.2 \\ 1.2 \pm 0.1 \\ 7.1 \pm 5 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 3.1 \pm 1.3 \\ \hline 120 \ h \\ 2.5 \pm 0.7 \\ 7 \pm 2.1 \\ 6.2 \pm 2.8 \\ 10.2 \pm 6 \\ 9.8 \pm 3.8 \\ 52.1 \pm 20.8 \\ 61.7 \pm 24.7 \\ 30.5 \pm 8.7 \\ \end{array}$
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Liver Tumor/Liver Tumor/Liver Tumor/Spleen Tumor/Sl Tumor/Sl Tumor/Sl Tumor/Sl	$\begin{array}{r} \textbf{stuzumab}\\ \textbf{24 h}\\ \hline \textbf{19.1 \pm 1.5}\\ \textbf{50 \pm 5.4}\\ \textbf{4.2 \pm 0.7}\\ \textbf{7.8 \pm 3.6}\\ \textbf{10.1 \pm 1.3}\\ \textbf{8.8 \pm 2.3}\\ \textbf{1.4 \pm 0.3}\\ \textbf{1.3 \pm 0.3}\\ \textbf{1.9 \pm 0.5}\\ \textbf{4.9 \pm 0.9}\\ \textbf{0.9 \pm 0.2}\\ \textbf{3.2 \pm 0.5}\\ \textbf{8.4 \pm 2}\\ \textbf{2.6 \pm 0.3}\\ \textbf{11.8 \pm 2.4}\\ \textbf{6.4 \pm 3}\\ \textbf{4.9 \pm 0.8}\\ \textbf{5.7 \pm 1.6}\\ \textbf{36.2 \pm 8}\\ \textbf{40 \pm 12}\\ \textbf{27 \pm 7.2}\\ \textbf{10.2 \pm 2.2}\\ \end{array}$	$\begin{array}{c} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ \hline \begin{array}{c} 48 \text{ h} \\ 7 \pm 7.5 \\ 20 \pm 13.1 \\ 16.3 \pm 13.5 \\ 6.8 \pm 1.9 \\ 5.5 \pm 1.8 \\ 66.8 \pm 40.3 \\ 64.8 \pm 24.3 \\ 25.1 \pm 12.4 \\ 16.7 \pm 9.6 \\ \end{array}$	$\begin{array}{c} \textbf{72 h} \\ 9.7 \pm 5.2 \\ 62.4 \pm 20 \\ 2.5 \pm 0.9 \\ 5 \pm 2.3 \\ 9.5 \pm 3.5 \\ 7.4 \pm 2.8 \\ 0.9 \pm 0.4 \\ 1.1 \pm 0.5 \\ 2 \pm 0.9 \\ 3.7 \pm 1.2 \\ 0.8 \pm 0.5 \\ 3.1 \pm 0.7 \\ 6.9 \pm 0.5 \\ \hline \textbf{72 h} \\ 6.4 \pm 4 \\ 25.1 \pm 11.9 \\ 12.5 \pm 7 \\ 6.5 \pm 3.2 \\ 8.5 \pm 4.2 \\ 71.7 \pm 39.7 \\ 55.2 \pm 31.4 \\ 31.5 \pm 17.3 \\ 16.9 \pm 7.6 \\ \end{array}$	$\begin{array}{c} 96 \text{ h} \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \hline \textbf{96 h} \\ \hline \textbf{7.9 \pm 6.8} \\ 31.3 \pm 15.4 \\ 16 \pm 10.7 \\ 7.2 \pm 2.9 \\ 7.6 \pm 3 \\ 64.6 \pm 29.5 \\ 65.2 \pm 27.9 \\ 31 \pm 12.4 \\ 18.8 \pm 11.1 \\ \hline \textbf{8.8 \pm 11.1} \end{array}$	$\begin{array}{c} 120 \ h \\ \hline 7.6 \pm 5.7 \\ 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline 120 \ h \\ \hline 7.5 \pm 5.8 \\ 21.7 \pm 12.4 \\ 21 \pm 14.9 \\ 7.1 \pm 2.8 \\ 8.4 \pm 3.6 \\ 92.8 \pm 38.7 \\ 69.9 \pm 21.9 \\ 34.7 \pm 11.5 \\ 20.3 \pm 9.9 \\ \end{array}$	177 Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Liver Tumor/Liver Tumor/Liver Tumor/Spleen Tumor/Sl Tumor/Sl Tumor/Sl Tumor/Sl	$\begin{array}{c} \textbf{turumab}\\ \textbf{24 h}\\ 20.4 \pm 1.7\\ 10.4 \pm 1.7\\ 11.8 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 \pm 0\\ 1.9 \pm 0.9\\ \textbf{24 h}\\ 0.9 \pm 0.2\\ 2.5 \pm 0.8\\ 1.8 \pm 0.6\\ 4.1 \pm 2.1\\ 4.8 \pm 1.4\\ 27.4 \pm 11.4\\ 31.9 \pm 10\\ 10.7 \pm 3.1\\ 3.4 \pm 1.4\end{array}$	$\begin{array}{c} 48 \ h \\ 17.4 \pm 1 \\ 31.6 \pm 2.9 \\ 4.9 \pm 3.3 \\ 6.7 \pm 3.6 \\ 5.7 \pm 3.6 \\ 5.7 \pm 3.6 \\ 3.1 \pm 2.9 \\ 1.3 \pm 1.9 \\ 0.5 \pm 0.3 \\ 1.5 \pm 1 \\ 7.3 \pm 0.7 \\ 0.5 \pm 0.4 \\ 1.3 \pm 0.8 \\ 2.4 \pm 1.7 \\ \hline \begin{array}{c} 48 \ h \\ 1.8 \pm 0.2 \\ 6.5 \pm 4.5 \\ 4.7 \pm 3.3 \\ 5.6 \pm 3.5 \\ 10 \pm 9.4 \\ 25.3 \pm 3.7.9 \\ 63.6 \pm 39.3 \\ 20.8 \pm 14.2 \\ 4.3 \pm 0.6 \\ \end{array}$	$\begin{array}{c} \textbf{72 h} \\ 18.1 \pm 2.8 \\ 32.1 \pm 7.4 \\ 5.8 \pm 1.6 \\ 7.1 \pm 2.3 \\ 5.7 \pm 2.5 \\ 3.2 \pm 1 \\ 0.9 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.5 \pm 0.4 \\ 5.1 \pm 0.8 \\ 0.4 \pm 0.1 \\ 1.3 \pm 0.3 \\ 2.1 \pm 0.2 \\ \textbf{72 h} \\ \textbf{1.8 \pm 0.5} \\ 5.5 \pm 2 \\ 4.5 \pm 1.8 \\ 5.7 \pm 2.9 \\ 9.9 \pm 3.8 \\ 34.6 \pm 11.6 \\ 42 \pm 13 \\ 20.8 \pm 7.3 \\ 6.3 \pm 1.7 \\ \end{array}$	$\begin{array}{c} \textbf{96 h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 2.5 \pm 0.7 \\ \textbf{82} + 1.6 \\ 13.4 \pm 5.7 \\ 10.6 \pm 3 \\ 48.8 \pm 16.1 \\ 72.8 \pm 20.8 \\ 27.1 \pm 9.2 \\ 8.4 \pm 2.2 \end{array}$	$\begin{array}{c} 120 \text{ h} \\ 14.7 \pm 0.7 \\ 37.4 \pm 10.3 \\ 5.4 \pm 0.6 \\ 6 \pm 2.1 \\ 3.7 \pm 1.9 \\ 3.8 \pm 1 \\ 0.7 \pm 0.2 \\ 0.6 \pm 0.2 \\ 1.2 \pm 0.1 \\ 7.1 \pm 5 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 3.1 \pm 1.3 \\ \hline 120 \text{ h} \\ 2.5 \pm 0.7 \\ 7 \pm 2.1 \\ 6.2 \pm 2.8 \\ 10.2 \pm 6 \\ 9.8 \pm 3.8 \\ 52.1 \pm 20.8 \\ 61.7 \pm 24.7 \\ 30.5 \pm 8.7 \\ 5.3 \pm 4 \\ \end{array}$
¹³⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Liver Tumor/Liver Tumor/Liver Tumor/Spleen Tumor/Sl Tumor/Sl Tumor/Kidney Tumor/Kidney	$\begin{array}{r} \textbf{stuzumab}\\ \textbf{24 h}\\ \hline \textbf{19.1 \pm 1.5}\\ \textbf{50 \pm 5.4}\\ \textbf{4.2 \pm 0.7}\\ \textbf{7.8 \pm 3.6}\\ \textbf{10.1 \pm 1.3}\\ \textbf{8.8 \pm 2.3}\\ \textbf{1.4 \pm 0.3}\\ \textbf{1.3 \pm 0.3}\\ \textbf{1.9 \pm 0.5}\\ \textbf{4.9 \pm 0.9}\\ \textbf{0.9 \pm 0.2}\\ \textbf{3.2 \pm 0.5}\\ \textbf{8.4 \pm 2}\\ \hline \textbf{2.6 \pm 0.3}\\ \textbf{11.8 \pm 2.4}\\ \textbf{6.4 \pm 3}\\ \textbf{4.9 \pm 0.8}\\ \textbf{5.7 \pm 1.6}\\ \textbf{36.2 \pm 8}\\ \textbf{40 \pm 12}\\ \textbf{27 \pm 7.2}\\ \textbf{10.2 \pm 2.2}\\ \textbf{5.3.1 \pm 10.7}\\ \end{array}$	$\begin{array}{r} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ \hline \begin{array}{r} 48 \text{ h} \\ 7 \pm 7.5 \\ 20 \pm 13.1 \\ 16.3 \pm 13.5 \\ 4.8 \pm 1.9 \\ 5.5 \pm 1.8 \\ 66.8 \pm 40.3 \\ 64.8 \pm 24.3 \\ 25.1 \pm 12.4 \\ 16.7 \pm 9.6 \\ 86.9 \pm 64.6 \\ \end{array}$	$\begin{array}{c} 72 h \\ 9.7 \pm 5.2 \\ 62.4 \pm 20 \\ 2.5 \pm 0.9 \\ 5 \pm 2.3 \\ 9.5 \pm 3.5 \\ 7.4 \pm 2.8 \\ 0.9 \pm 0.4 \\ 1.1 \pm 0.5 \\ 2 \pm 0.9 \\ 3.7 \pm 1.2 \\ 0.8 \pm 0.5 \\ 3.1 \pm 0.7 \\ 6.9 \pm 0.5 \\ \hline 72 h \\ 6.4 \pm 4 \\ 25.1 \pm 11.9 \\ 12.5 \pm 7 \\ 6.5 \pm 3.2 \\ 8.5 \pm 4.2 \\ 71.7 \pm 39.7 \\ 55.2 \pm 31.4 \\ 31.5 \pm 17.3 \\ 16.9 \pm 7.6 \\ 74.3 \pm 52 \end{array}$	$\begin{array}{r} 96 h \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \hline \begin{array}{r} \mathbf{96 \ h} \\ 7.9 \pm 6.8 \\ 31.3 \pm 15.4 \\ 16 \pm 10.7 \\ 7.2 \pm 2.9 \\ 7.6 \pm 3 \\ 64.6 \pm 29.5 \\ 65.2 \pm 27.9 \\ 31 \pm 12.4 \\ 18.8 \pm 11.1 \\ 138.1 \pm 65.1 \end{array}$	$\begin{array}{c} 120 \ h \\ \hline 7.6 \pm 5.7 \\ 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline 120 \ h \\ \hline 7.5 \pm 5.8 \\ 21.7 \pm 12.4 \\ 21 \pm 14.9 \\ 7.1 \pm 12.8 \\ 8.4 \pm 3.6 \\ 92.8 \pm 38.7 \\ 69.9 \pm 21.9 \\ 34.7 \pm 11.5 \\ 20.3 \pm 9.9 \\ 157.3 \pm 81.5 \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Kidney Muscle Bone Skin Tumor/Blood Tumor/Islood Tumor/Liver Tumor/Liver Tumor/Spleen Tumor/Spleen Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Kidney Tumor/Kidney Tumor/Kidney	turumab 24 h 20.4 ± 1.7 18.3 ± 4.8 7.2 ± 1 10 ± 1.5 4.5 ± 2 3.8 ± 0.5 0.7 ± 0.2 0.6 ± 0.1 1.7 ± 0.2 5.5 ± 1.7 0.7 ± 0.2 1.9 ± 0.9 24 h 0.9 ± 0.2 2.5 ± 0.8 1.8 ± 0.6 4.1 ± 2.1 4.8 ± 1.4 27.4 ± 11.4 31.9 ± 10 10.7 ± 3.1 3.4 ± 1.4 28 ± 11.5	$\begin{array}{c} 48 \text{ h} \\ 17.4 \pm 1 \\ 31.6 \pm 2.9 \\ 4.9 \pm 3.3 \\ 6.7 \pm 4.6 \\ 5.7 \pm 3.6 \\ 3.1 \pm 2.9 \\ 1.3 \pm 1.9 \\ 0.5 \pm 0.3 \\ 1.5 \pm 1 \\ 7.3 \pm 0.7 \\ 0.5 \pm 0.4 \\ 1.3 \pm 0.8 \\ 2.4 \pm 1.7 \\ \hline \begin{array}{c} 48 \text{ h} \\ 1.8 \pm 0.2 \\ 6.5 \pm 4.5 \\ 4.7 \pm 3.3 \\ 5.6 \pm 3.5 \\ 10 \pm 9.4 \\ 25.3 \pm 3.79 \\ 63.6 \pm 39.3 \\ 20.8 \pm 14.2 \\ 4.3 \pm 0.6 \\ 58.6 \pm 39.5 \end{array}$	$\begin{array}{c} \textbf{72 h} \\ 18.1 \pm 2.8 \\ 32.1 \pm 7.4 \\ 5.8 \pm 1.6 \\ 7.1 \pm 2.3 \\ 5.7 \pm 2.5 \\ 3.2 \pm 1 \\ 0.9 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.5 \pm 0.4 \\ 5.1 \pm 0.8 \\ 0.4 \pm 0.1 \\ 1.3 \pm 0.3 \\ 2.1 \pm 0.2 \\ \hline \textbf{72 h} \\ \hline \textbf{1.8 \pm 0.5} \\ 5.5 \pm 2 \\ 4.5 \pm 1.8 \\ 5.7 \pm 2.9 \\ 9.9 \pm 3.8 \\ 34.6 \pm 11.6 \\ 42 \pm 13 \\ 20.8 \pm 7.3 \\ 20.8 \pm 7.3 \\ 6.3 \pm 1.7 \\ 71.5 \pm 18.4 \\ \end{array}$	$\begin{array}{r} 96 h \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 2.5 \pm 0.7 \\ 8 \pm 2.9 \\ 5.9 \pm 1.6 \\ 13.4 \pm 5.7 \\ 10.6 \pm 3 \\ 48.8 \pm 16.1 \\ 72.8 \pm 20.8 \\ 27.1 \pm 9.2 \\ 8.4 \pm 2.2 \\ 8.4 \pm 2.2 \\ 8.4 \pm 2.2 \\ 68.1 \pm 27.6 \\ \end{array}$	$\begin{array}{c} 120 h \\ 14.7 \pm 0.7 \\ 37.4 \pm 10.3 \\ 5.4 \pm 0.6 \\ 6 \pm 2.1 \\ 3.7 \pm 1.9 \\ 3.8 \pm 1 \\ 0.7 \pm 0.2 \\ 0.6 \pm 0.2 \\ 1.2 \pm 0.1 \\ 7.1 \pm 5 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 3.1 \pm 1.3 \\ \hline 120 h \\ 2.5 \pm 0.7 \\ 7 \pm 2.1 \\ 6.2 \pm 2.8 \\ 10.2 \pm 6 \\ 9.8 \pm 3.8 \\ 52.1 \pm 20.8 \\ 61.7 \pm 2.4 \\ 30.5 \pm 8.7 \\ 5.3 \pm 4 \\ \hline .5.3 \pm 4 \\ 74.3 \pm 25.7 \end{array}$
¹³⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Liver Tumor/Spleen Tumor/Spleen Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Muscle Tumor/Bone	$\begin{array}{r} \textbf{stuzumab}\\ \textbf{24 h}\\ \hline \textbf{19.1 \pm 1.5}\\ \textbf{50 \pm 5.4}\\ \textbf{4.2 \pm 0.7}\\ \textbf{7.8 \pm 3.6}\\ \textbf{10.1 \pm 1.3}\\ \textbf{8.8 \pm 2.3}\\ \textbf{1.4 \pm 0.3}\\ \textbf{1.3 \pm 0.3}\\ \textbf{1.9 \pm 0.5}\\ \textbf{4.9 \pm 0.9}\\ \textbf{0.9 \pm 0.2}\\ \textbf{3.2 \pm 0.5}\\ \textbf{8.4 \pm 2}\\ \textbf{26 \pm 0.3}\\ \textbf{11.8 \pm 2.4}\\ \textbf{6.4 \pm 3}\\ \textbf{4.9 \pm 0.8}\\ \textbf{5.7 \pm 1.6}\\ \textbf{36.2 \pm 8}\\ \textbf{40 \pm 12}\\ \textbf{27 \pm 7.2}\\ \textbf{10.2 \pm 2.2}\\ \textbf{53.1 \pm 10.7}\\ \textbf{15.8 \pm 2.9}\\ \end{array}$	$\begin{array}{r} 48 \text{ h} \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ \hline \begin{array}{r} 48 \text{ h} \\ 7 \pm 7.5 \\ 20 \pm 13.1 \\ 16.3 \pm 13.5 \\ 4.8 \pm 1.9 \\ 5.5 \pm 1.8 \\ 66.8 \pm 40.3 \\ 64.8 \pm 24.3 \\ 25.1 \pm 12.4 \\ 16.7 \pm 9.6 \\ 86.9 \pm 64.6 \\ 16.1 \pm 4.5 \\ \end{array}$	$\begin{array}{c} \textbf{72 h} \\ 9.7 \pm 5.2 \\ 62.4 \pm 20 \\ 2.5 \pm 0.9 \\ 5 \pm 2.3 \\ 9.5 \pm 3.5 \\ 7.4 \pm 2.8 \\ 0.9 \pm 0.4 \\ 1.1 \pm 0.5 \\ 2 \pm 0.9 \\ 3.7 \pm 1.2 \\ 0.8 \pm 0.5 \\ 3.1 \pm 0.7 \\ 6.9 \pm 0.5 \\ \textbf{72 h} \\ \hline \textbf{6.4 \pm 4} \\ 25.1 \pm 11.9 \\ 12.5 \pm 7 \\ 6.5 \pm 3.2 \\ 8.5 \pm 4.2 \\ \textbf{71.7 \pm 39.7} \\ 55.2 \pm 31.4 \\ 31.5 \pm 17.3 \\ 16.9 \pm 7.6 \\ \textbf{74.3 \pm 52} \\ 20.3 \pm 8.2 \\ \end{array}$	$\begin{array}{r} 96 h \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \hline \begin{array}{r} 96 h \\ 7.9 \pm 6.8 \\ 31.3 \pm 15.4 \\ 16 \pm 10.7 \\ 7.2 \pm 2.9 \\ 7.6 \pm 3 \\ 64.6 \pm 29.5 \\ 65.2 \pm 27.9 \\ 31 \pm 12.4 \\ 18.8 \pm 11.1 \\ 138.1 \pm 65.1 \\ 138.1 \pm 65.1 \\ 16.7 \pm 8.4 \\ \end{array}$	$\begin{array}{c} 120 h \\ \hline 7.6 \pm 5.7 \\ 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline 120 h \\ \hline 7.5 \pm 5.8 \\ 21.7 \pm 12.4 \\ 21 \pm 14.9 \\ 7.1 \pm 2.8 \\ 8.4 \pm 3.6 \\ 92.8 \pm 38.7 \\ 69.9 \pm 21.9 \\ 34.7 \pm 11.5 \\ 20.3 \pm 9.9 \\ 157.3 \pm 81.5 \\ 15.8 \pm 8.4 \\ \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Blood Tumor/Liver Tumor/Spleen Tumor/Spleen Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Stomach Tumor/Kiney Tumor/Muscle Tumor/Bone	$\begin{array}{c} \textbf{turumab}\\ \textbf{24 h}\\ 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 \pm 0\\ 1.9 \pm 0.9\\ \hline \textbf{24 h}\\ 0.9 \pm 0.2\\ 2.5 \pm 0.8\\ 1.8 \pm 0.6\\ 4.1 \pm 2.1\\ 4.8 \pm 1.4\\ 27.4 \pm 11.4\\ 31.9 \pm 10\\ 10.7 \pm 3.1\\ 3.4 \pm 1.4\\ 28 \pm 11.5\\ 15.1 \pm 4\\ \end{array}$	$\begin{array}{r} 48 \text{ h} \\ 17.4 \pm 1 \\ 31.6 \pm 2.9 \\ 4.9 \pm 3.3 \\ 6.7 \pm 4.6 \\ 5.7 \pm 3.6 \\ 3.1 \pm 2.9 \\ 1.3 \pm 1.9 \\ 0.5 \pm 0.3 \\ 1.5 \pm 1 \\ 7.3 \pm 0.7 \\ 0.5 \pm 0.4 \\ 1.3 \pm 0.8 \\ 2.4 \pm 1.7 \\ \hline \textbf{48 h} \\ 1.8 \pm 0.2 \\ 6.5 \pm 4.5 \\ 4.7 \pm 3.3 \\ 5.6 \pm 3.5 \\ 10 \pm 9.4 \\ 25.3 \pm 37.9 \\ 63.6 \pm 3.93 \\ 20.8 \pm 14.2 \\ 4.3 \pm 0.6 \\ 58.6 \pm 39.5 \\ 24.7 \pm 16 \\ \end{array}$	$\begin{array}{c} 72 h \\ 18.1 \pm 2.8 \\ 32.1 \pm 7.4 \\ 5.8 \pm 1.6 \\ 7.1 \pm 2.3 \\ 5.7 \pm 2.5 \\ 3.2 \pm 1 \\ 0.9 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.5 \pm 0.4 \\ 5.1 \pm 0.8 \\ 0.4 \pm 0.1 \\ 1.3 \pm 0.3 \\ 2.1 \pm 0.2 \\ \hline 72 h \\ 1.8 \pm 0.5 \\ 5.5 \pm 2 \\ 4.5 \pm 1.8 \\ 5.7 \pm 2.9 \\ 9.9 \pm 3.8 \\ 34.6 \pm 11.6 \\ 42 \pm 13 \\ 20.8 \pm 7.3 \\ 6.3 \pm 1.7 \\ 71.5 \pm 18.4 \\ 24.2 \pm 7.8 \\ \end{array}$	$\begin{array}{r} 96 h \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.7 \\ 8.4 \pm 0.2 \\ 1.4 $	$\begin{array}{c} 120 h \\ 14.7 \pm 0.7 \\ 37.4 \pm 10.3 \\ 5.4 \pm 0.6 \\ 6 \pm 2.1 \\ 3.7 \pm 1.9 \\ 3.8 \pm 1 \\ 0.7 \pm 0.2 \\ 0.6 \pm 0.2 \\ 1.2 \pm 0.1 \\ 7.1 \pm 5 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 3.1 \pm 1.3 \\ \hline 120 h \\ 2.5 \pm 0.7 \\ 7 \pm 2.1 \\ 6.2 \pm 2.8 \\ 10.2 \pm 6 \\ 9.8 \pm 3.8 \\ 52.1 \pm 20.8 \\ 61.7 \pm 24.7 \\ 30.5 \pm 8.7 \\ 5.3 \pm 4 \\ 74.3 \pm 25.7 \\ 26.4 \pm 8. \\ \end{array}$
¹⁷⁷ Lu-octapa-tras Organ Blood Tumor Heart Lung Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Tissue Tumor/Blood Tumor/Heart Tumor/Spleen Tumor/Spleen Tumor/Si Tumor/Li Tumor/SI Tumor/Kidney Tumor/Kidney Tumor/Mone Tumor/Sone	$\begin{array}{r} \textbf{stuzumab}\\ \hline \textbf{24 h}\\ \hline 19.1 \pm 1.5\\ 50 \pm 5.4\\ 4.2 \pm 0.7\\ 7.8 \pm 3.6\\ 10.1 \pm 1.3\\ 8.8 \pm 2.3\\ 1.4 \pm 0.3\\ 1.3 \pm 0.3\\ 1.9 \pm 0.5\\ 4.9 \pm 0.9\\ 0.9 \pm 0.2\\ 3.2 \pm 0.5\\ 8.4 \pm 2\\ \hline \textbf{24 h}\\ 2.6 \pm 0.3\\ 11.8 \pm 2.4\\ 6.4 \pm 3\\ 4.9 \pm 0.8\\ 5.7 \pm 1.6\\ 36.2 \pm 8\\ 40 \pm 12\\ 27 \pm 7.2\\ 10.2 \pm 2.2\\ 53.1 \pm 10.7\\ 5.8 \pm 2.9\\ 5.9 \pm 1.6\\ \end{array}$	$\begin{array}{r} 48 \ h \\ 9.1 \pm 9.5 \\ 63.5 \pm 15 \\ 3.2 \pm 1.9 \\ 3.9 \pm 3.1 \\ 13.2 \pm 4 \\ 11.5 \pm 2.5 \\ 1 \pm 0.5 \\ 1 \pm 0.3 \\ 2.5 \pm 1.1 \\ 3.8 \pm 2 \\ 0.7 \pm 0.5 \\ 4 \pm 0.6 \\ 6.8 \pm 2.9 \\ \hline 48 \ h \\ 7 \pm 7.5 \\ 20 \pm 13.1 \\ 16.3 \pm 13.5 \\ 4.8 \pm 1.9 \\ 5.5 \pm 1.8 \\ 66.8 \pm 40.3 \\ 64.8 \pm 24.3 \\ 25.1 \pm 12.4 \\ 16.7 \pm 9.6 \\ 86.9 \pm 64.6 \\ 16.1 \pm 4.5 \\ 9.4 \pm 4.6 \\ \end{array}$	$\begin{array}{c} \textbf{72 h} \\ \textbf{9.7} \pm 5.2 \\ \textbf{62.4} \pm 20 \\ \textbf{2.5} \pm 0.9 \\ \textbf{5} \pm 2.3 \\ \textbf{9.5} \pm 3.5 \\ \textbf{7.4} \pm 2.8 \\ \textbf{0.9} \pm 0.4 \\ \textbf{1.1} \pm 0.5 \\ \textbf{2} \pm 0.9 \\ \textbf{3.7} \pm 1.2 \\ \textbf{0.8} \pm 0.5 \\ \textbf{3.1} \pm 0.7 \\ \textbf{6.9} \pm 0.5 \\ \textbf{72 h} \\ \textbf{6.4} \pm 4 \\ \textbf{25.1} \pm 11.9 \\ \textbf{12.5} \pm 7 \\ \textbf{6.5} \pm 3.2 \\ \textbf{8.5} \pm 4.2 \\ \textbf{71.7} \pm 39.7 \\ \textbf{55.2} \pm 31.4 \\ \textbf{31.5} \pm 17.3 \\ \textbf{16.9} \pm 7.6 \\ \textbf{74.3} \pm 52 \\ \textbf{20.3} \pm 8.2 \\ \textbf{9.1} \pm 3 \end{array}$	$\begin{array}{r} \textbf{96 h} \\ 8.9 \pm 6.9 \\ 70.4 \pm 25.8 \\ 2.3 \pm 0.7 \\ 4.4 \pm 2.5 \\ 9.8 \pm 1.7 \\ 9.2 \pm 1.2 \\ 1.1 \pm 0.3 \\ 1.1 \pm 0.2 \\ 2.3 \pm 0.4 \\ 3.8 \pm 1.8 \\ 0.5 \pm 0.2 \\ 4.2 \pm 1.5 \\ 5.6 \pm 1.2 \\ \hline \textbf{96 h} \\ \hline \textbf{7.9 \pm 6.8 } \\ 31.3 \pm 15.4 \\ 16 \pm 10.7 \\ 7.2 \pm 2.9 \\ 7.6 \pm 3 \\ 64.6 \pm 29.5 \\ 65.2 \pm 27.9 \\ 31 \pm 12.4 \\ 18.8 \pm 11.1 \\ 138.1 \pm 65.1 \\ 18.8 \pm 11.1 \\ 138.1 \pm 65.3 \\ 16.7 \pm 8.4 \\ 12.5 \pm 5.3 \\ \end{array}$	$\begin{array}{c} \textbf{120 h} \\ \hline 7.6 \pm 5.7 \\ 56.6 \pm 12.7 \\ 2.6 \pm 1.4 \\ 2.7 \pm 1.8 \\ 8 \pm 2.6 \\ 6.7 \pm 2.4 \\ 0.6 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.6 \pm 0.4 \\ 2.8 \pm 1.2 \\ 0.4 \pm 0.2 \\ 3.6 \pm 1.7 \\ 4.1 \pm 2.2 \\ \hline \textbf{120 h} \\ 7.5 \pm 5.8 \\ 21.7 \pm 12.4 \\ 21.1 \pm 12.4 \\ 21.2 \pm 13.6 \\ 92.8 \pm 38.7 \\ 69.9 \pm 21.9 \\ 34.7 \pm 11.5 \\ 20.3 \pm 9.9 \\ 157.3 \pm 81.5 \\ 15.8 \pm 8.4 \\ 13.9 \pm 8.4 \\ 13.9 \pm 8.3 \\ \end{array}$	¹⁷⁷ Lu-DOTA-trast Organ Blood Tumor Heart Lungs Liver Spleen Stomach Large Intestine Small Intestine Kidney Muscle Bone Skin Tumor/Tissue Tumor/Tissue Tumor/Blood Tumor/Heart Tumor/Spleen Tumor/Spleen Tumor/Si Tumor/Li Tumor/SI Tumor/Kidney Tumor/Bone Tumor/Bone	$\begin{array}{r} \textbf{tuzumab}\\ \textbf{24 h}\\ 20.4 \pm 1.7\\ 18.3 \pm 4.8\\ 7.2 \pm 1\\ 10 \pm 1.5\\ 4.5 \pm 2\\ 3.8 \pm 0.5\\ 0.7 \pm 0.2\\ 0.6 \pm 0.1\\ 1.7 \pm 0.2\\ 5.5 \pm 1.7\\ 0.7 \pm 0.2\\ 1.2 \pm 0\\ 1.9 \pm 0.9\\ \textbf{24 h}\\ 0.9 \pm 0.9\\ \textbf{24 h}\\ 0.9 \pm 0.9\\ \textbf{25 \pm 0.8}\\ 1.8 \pm 0.6\\ 4.1 \pm 2.1\\ 4.8 \pm 1.4\\ 27.4 \pm 11.4\\ 31.9 \pm 10\\ 10.7 \pm 3.1\\ 3.4 \pm 1.4\\ 28 \pm 11.5\\ 15.1 \pm 4\\ 9.4 \pm 4.9\\ \end{array}$	$\begin{array}{c} \textbf{48 h} \\ 17.4 \pm 1 \\ 31.6 \pm 2.9 \\ 4.9 \pm 3.3 \\ 6.7 \pm 4.6 \\ 5.7 \pm 3.6 \\ 3.1 \pm 2.9 \\ 1.3 \pm 1.9 \\ 0.5 \pm 0.3 \\ 1.5 \pm 1 \\ 7.3 \pm 0.7 \\ 0.5 \pm 0.4 \\ 1.3 \pm 0.8 \\ 2.4 \pm 1.7 \\ \textbf{48 h} \\ 1.8 \pm 0.2 \\ 6.5 \pm 4.5 \\ 4.7 \pm 3.3 \\ 5.6 \pm 3.5 \\ 10 \pm 9.4 \\ 25.3 \pm 37.9 \\ 63.6 \pm 39.3 \\ 20.8 \pm 14.2 \\ 4.3 \pm 0.6 \\ 58.6 \pm 39.5 \\ 24.7 \pm 16 \\ 13.2 \pm 9.5 \\ \end{array}$	$\begin{array}{c} \textbf{72 h} \\ 18.1 \pm 2.8 \\ 32.1 \pm 7.4 \\ 5.8 \pm 1.6 \\ 7.1 \pm 2.3 \\ 5.7 \pm 2.5 \\ 3.2 \pm 1 \\ 0.9 \pm 0.2 \\ 0.8 \pm 0.2 \\ 1.5 \pm 0.4 \\ 5.1 \pm 0.8 \\ 0.4 \pm 0.1 \\ 1.3 \pm 0.3 \\ 2.1 \pm 0.2 \\ \textbf{72 h} \\ 1.8 \pm 0.5 \\ 5.5 \pm 2 \\ 4.5 \pm 1.8 \\ 5.7 \pm 2.9 \\ 9.9 \pm 3.8 \\ 34.6 \pm 11.6 \\ 42 \pm 13 \\ 20.8 \pm 7.3 \\ 6.3 \pm 1.7 \\ \textbf{71.5 \pm 18.4} \\ 5.3 \pm 1.7 \\ \textbf{71.5 \pm 18.4} \\ 15 \pm 3.7 \\ \end{array}$	$\begin{array}{c} \textbf{96 h} \\ 15 \pm 0.8 \\ 37 \pm 9.5 \\ 4.6 \pm 1.1 \\ 6.3 \pm 0.6 \\ 2.8 \pm 0.9 \\ 3.5 \pm 0.4 \\ 0.8 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 4.4 \pm 0.2 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.2 \\ 0.5 \pm 0.2 \\ 0.9 \pm 0.2 \\ 2.1 \pm 0.7 \\ \textbf{96 h} \\ 13.4 \pm 5.7 \\ 10.6 \pm 3 \\ 48.8 \pm 16.1 \\ 13.4 \pm 5.7 \\ 10.6 \pm 3 \\ 48.8 \pm 16.1 \\ 72.8 \pm 20.8 \\ 27.1 \pm 9.2 \\ 8.4 \pm 2.2 \\ 68.1 \pm 27.6 \\ 43.3 \pm 14.5 \\ 17.6 \pm 7.1 \\ \end{array}$	$\begin{array}{c} 120 \ h \\ 14.7 \pm 0.7 \\ 37.4 \pm 10.3 \\ 5.4 \pm 0.6 \\ 6 \pm 2.1 \\ 3.7 \pm 1.9 \\ 3.8 \pm 1 \\ 0.7 \pm 0.2 \\ 0.6 \pm 0.2 \\ 1.2 \pm 0.1 \\ 7.1 \pm 5 \\ 0.5 \pm 0.1 \\ 1.4 \pm 0.3 \\ 3.1 \pm 1.3 \\ \hline 120 \ h \\ 2.5 \pm 0.7 \\ 7 \pm 2.1 \\ 6.2 \pm 2.8 \\ 10.2 \pm 6 \\ 9.8 \pm 3.8 \\ 52.1 \pm 20.8 \\ 61.7 \pm 24.7 \\ 30.5 \pm 8.7 \\ 5.3 \pm 4 \\ 74.3 \pm 25.7 \\ 26.4 \pm 8.7 \\ 11.9 \pm 5.9 \\ \hline \end{array}$

Supplementary Table S1. Biodistribution data from ¹¹¹In/¹⁷⁷Lu-octapa-trastuzumab and ¹¹¹In/¹⁷⁷Lu-DOTA-trastuzumab in female nude athymic mice (n = 4) with subcutaneous SKOV-3 xenografts (right shoulder, tumor volume ~ 100-150 mm³) showing organ uptake as % ID/g with relevant tumor/tissue ratios, with the error expressed as standard deviation (SD).



Supplementary Figure S16. Biodistribution data from ¹¹¹In/¹⁷⁷Lu-octapa-trastuzumab and ¹¹¹In/¹⁷⁷Lu-DOTA-trastuzumab in female nude athymic mice (n = 4) with subcutaneous SKOV-3 xenografts (right shoulder, 100-150 mm³) showing organ uptake as % ID/g, with the error expressed as standard deviation (SD), see Table 1 and Supplementary Tables S18 and S19 for data.

	¹¹¹ In-octapa	¹⁷⁷ Lu-octapa	¹¹¹ In-octapa	¹⁷⁷ Lu-octapa	¹¹¹ In-octapa	¹⁷⁷ Lu-octapa
	DOTA-	DOTA-	DOTA-	DOTA-	DOTA-	DOTA-
	Trastuzumab	Trastuzumab	Trastuzumab	Trastuzumab	Trastuzumab	Trastuzumab
Tissue	72 h	72 h	96 h	96 h	120 h	120 h
Blood	0.094	0.029	0.052	0.128	0.316	0.048
Tumor	0.027	0.030	0.038	0.051	0.033	0.057
Heart	0.026	0.011	0.023	0.014	0.091	0.010
Lungs	0.294	0.254	0.205	0.199	0.876	0.054
Liver	0.041	0.122	0.002	0.000	0.026	0.037
Spleen	0.000	0.033	0.001	0.000	0.027	0.072
Stomach	0.056	0.800	0.936	0.096	0.916	0.504
Large Intestine	0.031	0.234	0.001	0.004	0.001	0.147
Small Intestine	0.036	0.398	0.041	0.008	0.013	0.094
Kidney	0.531	0.095	0.403	0.495	0.331	0.147
Muscle	0.080	0.191	0.385	0.807	0.185	0.199
Bone	0.031	0.005	0.000	0.004	0.919	0.047
Skin	0.003	0.000	0.012	0.002	0.872	0.495

Supplementary Table S2. P-values from a students two-tailed T-Test comparing the data sets (n = 4) of biodistribution %ID/g values between ¹¹¹In and ¹⁷⁷Lu radiolabeled H₄octapaand DOTA-based trastuzumab immunoconjugates.

	Serum stability	Serum stability
Complex	1.5 h (%)	24 h (%)
[¹⁷⁷ Lu(octapa)] ⁻	88.1 ± 1.2	87.7 ± 0.7
[¹⁷⁷ Lu(DOTA)] ⁻	87.7 ± 0.7	87.4 ± 2.1
[¹⁷⁷ Lu(DTPA)] ²⁻	77.4 ± 1.2	81.6 ± 2.3

Supplementary Table S3. Human blood serum stability assays of ¹⁷⁷Lu(chelate) complexes (37.5 °C), analyzed via PD-10 size exclusion column elution, with % stability expressed as the % intact radiometal complex (n = 3).

Max 24 h 48 h 72 h 96 h 120 h

¹¹¹In-Octapa-trastuzumab

Supplementary Figure S17. SPECT/CT imaging of ¹¹¹In-octapa-trastuzumab in a female nude athymic mice (n = 2) bearing a subcutaneous SKOV-3 ovarian cancer xenograft (right shoulder, white arrow, tumor volume ~ 100-150 mm³). The transverse (top) and coronal (bottom) planar images bisect the tumor and were collected at 24, 48, 72, 96, and 120 h post injection.

¹¹¹In-DOTA-trastuzumab



Supplementary Figure S18. SPECT/CT imaging of ¹¹¹In-DOTA-trastuzumab in a female nude athymic mice (n = 2) bearing a subcutaneous SKOV-3 ovarian cancer xenograft (right shoulder, white arrow, tumor volume ~ 100-150 mm³). The transverse (top) and coronal (bottom) planar images bisect the tumor and were collected at 24, 48, 72, 96, and 120 h post injection.

¹⁷⁷Lu-Octapa-trastuzumab



Supplementary Figure S19. SPECT/CT imaging of ¹⁷⁷Lu-octapa-trastuzumab in a female nude athymic mice (n = 2) bearing a subcutaneous SKOV-3 ovarian cancer xenograft (right shoulder, white arrow, tumor volume ~ 100-150 mm³). The transverse (top) and coronal (bottom) planar images bisect the tumor and were collected at 24, 48, 72, 96, and 120 h post injection.

¹⁷⁷Lu-DOTA-trastuzumab



Supplementary Figure S20. SPECT/CT imaging of ¹⁷⁷Lu-DOTA-trastuzumab in a female nude athymic mice (n = 2) bearing a subcutaneous SKOV-3 ovarian cancer xenograft (right shoulder, white arrow, tumor volume ~ 100-150 mm³). The transverse (top) and coronal (bottom) planar images bisect the tumor and were collected at 24, 48, 72, 96, and 120 h post injection.



Supplementary Figure S21. H₄octapa speciation curve, calculated from potentiometric titration experiments, showing the major species in solution at various pH, relative to 100% L.



Supplementary Figure S22. Crude HPLC chromatogram of *p*-SCN-Bn-octapa purified on a semi-preparatory column (see experimental methods). The product elutes as a broad peak at t_R of 34 minutes.