

## Supplementary Information

### Rapid detection of abrin in foods with an up-converting phosphor technology-based lateral flow assay

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**Supplementary Table S1. Quantities and titers of mAbs against abrin**

**prepared in this study.**

<b>mAb</b>	<b>1F8</b>	<b>2F8</b>	<b>5C5</b>	<b>6F4</b>	<b>7G6</b>	<b>8F4</b>	<b>9G12</b>	<b>10E11</b>	<b>10G2</b>
<b>Quantities (mg mL<sup>-1</sup>)</b>	10	8	18	10	13	18	8	7	11
<b>Titers (ng mL<sup>-1</sup>)</b>	15.6	15.6	15.6	31.25	15.6	125	31.25	31.25	31.25

**Supplementary Table S2. Comparison of different mAb pairs for use in the double-antibody-sandwich-based abrin-UPT-LFA.**

M-mAb	Initial LODs for abrin (ng mL <sup>-1</sup> ) with different UCP-mAb conjugates								
	1F8	2F8	5C5	6F4	7G6	8F4	9G12	10E11	10G2
<b>1F8</b>	-	F	<b>10</b>	100	100	F	100	<b>10</b>	100
<b>2F8</b>	<b>10</b>	-	F	100	F	F	<b>10</b>	F	F
<b>5C5</b>	F	100	-	F	<b>10</b>	<b>10</b>	F	100	<b>10</b>
<b>6F4</b>	F	<b>10</b>	F	-	F	F	F	100	<b>10</b>
<b>7G6</b>	F	<b>10</b>	<b>10</b>	100	-	100	100	F	F
<b>8F4</b>	100	F	F	F	<b>10</b>	-	F	100	<b>10</b>
<b>9G12</b>	F	F	F	100	F	F	-	F	F
<b>10E11</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	100	F	-	100
<b>10G2</b>	F	F	100	100	<b>10</b>	100	F	100	-

“-” means “not used to prepare the strip”. “F” means “failed to detect positive samples (10, 100 ng mL<sup>-1</sup>) in the assay”. The mAb pairs with lower initial LODs for abrin are shown in bold.