

S3 Table. A list of FDA approved combination products together with their corresponding approval indications and primary therapeutic targets.

Drug Name	No. of Drugs	Code of ICD class	Disease indication	Target Name
Cobimetinib + Vemurafenib	2	C00-D49	Unresectable or metastatic melanoma	MEK (Cobimetinib) B-Raf (Vemurafenib)
Dabrafenib + Trametinib	2	C00-D49	Unresectable or metastatic melanoma	B-Raf (Dabrafenib) MEK (Trametinib)
Erlotinib + Gemcitabine	2	C00-D49	Advanced, unresectable or metastatic pancreatic cancer	EGFR (Erlotinib) Ribonucleotide reductase (Gemcitabine)
Lapatinib + Capecitabine	2	C00-D49	Advanced or metastatic breast cancer	EGFR (Lapatinib) Thymidylate synthase (Capecitabine)
Lapatinib + Letrozole	2	C00-D49	Hormone receptor positive metastatic breast cancer	EGFR (Lapatinib) Aromatase (Letrozole)
Palbociclib + Letrozole	2	C00-D49	ER-positive,HER2-negative advanced breast cancer	CDK4, CDK6 (Palbociclib) Aromatase (Letrozole)
Ramucirumab + Paclitaxel	2	C00-D49	Gastric or gastro-esophageal junction adenocarcinoma	VEGFR2 (Ramucirumab) Tubulin (Paclitaxel)
Ramucirumab + Docetaxel	2	C00-D49	Metastatic non-small cell lung cancer	VEGFR2 (Ramucirumab) Tubulin (Docetaxel)
Tofacitinib + Methotrexate	2	M00-M99	Moderately to severely active rheumatoid arthritis	JAK3 (Tofacitinib) Dihydrofolate reductase (Methotrexate)
Trastuzumab + Paclitaxel	2	C00-D49	HER2-overexpressing metastatic breast cancer	HER2 (Trastuzumab) Tubulin (Paclitaxel)
Idelalisib + Rituximab	2	C00-D49	Relapsed chronic lymphocytic leukemia	PI3K-delta (Idelalisib) CD20 (Rituximab)
Cetuximab + Irinotecan	2	C00-D49	K-Ras wild-type, EGFR-expressing Colorectal Cancer	EGFR (Cetuximab) Type I topoisomerase (Irinotecan)

Cetuximab + 5-fluorouracil	2	C00-D49	Squamous cell carcinoma of the head and neck	EGFR (Cetuximab) Thymidylate synthase (5-fluorouracil)
Necitumumab + Gemcitabine + Cisplatin	3	C00-D49	Metastatic squamous non-small cell lung cancer	EGFR (Necitumumab) Ribonucleotide reductase (Gemcitabine) Human DNA (Cisplatin)
Pertuzumab + Trastuzumab + Docetaxel	3	C00-D49	HER2-positive metastatic breast cancer	HER2 (Pertuzumab) HER2 (Trastuzumab) Tubulin (Docetaxel)
Trastuzumab + Cisplatin + Capecitabine	3	C00-D49	HER2-positive metastatic gastric or gastroesophageal junction adenocarcinoma	HER2 (Trastuzumab) Human DNA (Cisplatin) Thymidylate synthase (Capecitabine)
Trastuzumab + Cisplatin + 5-fluorouracil	3	C00-D49	HER2-positive metastatic gastric or gastroesophageal junction adenocarcinoma	HER2 (Trastuzumab) Human DNA (Cisplatin) Thymidylate synthase (5-fluorouracil)
Trastuzumab + Docetaxel + Carboplatin	3	C00-D49	HER2-positive breast cancer	HER2 (Trastuzumab) Tubulin (Docetaxel) Human DNA (Carboplatin)
Trastuzumab + Doxorubicin + Cyclophosphamide + Paclitaxel	4	C00-D49	HER2-positive breast cancer	HER2 (Trastuzumab) Human DNA (Doxorubicin) Human DNA (Cyclophosphamide) Tubulin (Paclitaxel)
Trastuzumab + Doxorubicin + Cyclophosphamide + Docetaxel	4	C00-D49	HER2-positive breast cancer	HER2 (Trastuzumab) Human DNA (Doxorubicin) Human DNA (Cyclophosphamide) Tubulin (Docetaxel)