

## TUMOR ASSOCIATED MUTATIONS IN ERBB2

Domain	Mutation	Tumor Type
Furin-like CRD	p.L49H	Glioblastoma
Furin-like CRD	p.T216S	Glioblastoma
Furin-like CRD	p.S310F	Lung adenocarcinoma
Furin-like CRD	p.C311R	Glioblastoma
Furin-like CRD	p.N319D	Glioblastoma
Furin-like CRD	p.E321G	Glioblastoma
Furin-like CRD	p.D326G	Glioblastoma
Furin-like CRD	p.C334S	Glioblastoma
Kinase	p.K724N	Stomach adenocarcinoma
Kinase	p.T733I	Stomach adenocarcinoma
Kinase	p.E744G	Lung NSCLC
Kinase	p.N745D	Lung NSCLC
Kinase	p.V750E	Glioblastoma
Kinase	p.L755 S760>A	Breast ductal carcinoma
Kinase	p.L755P	Lung bronchioloalveolar carcinoma
Kinase	p.L755S	Stomach adenocarcinoma Breast ductal carcinoma
Kinase	p.S760F	Lung NSCLC
Kinase	p.D769H	Lung adenocarcinoma Stomach SQCC Lung SQCC
Kinase	p.V773A	Pharynx SQCC

## 2 TARGETING PROTEIN KINASES FOR CANCER THERAPY

Kinase	p.M774 A775insAYVM	Lung adenocarcinoma Lung bronchioloalveolar adenocarcinoma Ovarian serous carcinoma
Kinase	p.A775 G776insYVMA	Lung adenocarcinoma Lung bronchioloalveolar adenocarcinoma Ovarian serous carcinoma
Kinase	p.G776S	Stomach carcinoma
Kinase	p.G776V	Breast carcinoma Ovary carcinoma
Kinase	p.G776>LC	Lung adenocarcinoma
Kinase	p.G776>VC	Lung adenocarcinoma Lung bronchioloalveolar adenocarcinoma
Kinase	p.G776insYVMA	Lung adenocarcinoma
Kinase	p.V777A	Glioblastoma
Kinase	p.V777M	Rectal adenocarcinoma
Kinase	p.V777L	Rectal adenocarcinoma Lung adenocarcinoma Stomach adenocarcinoma
Kinase	p.G778 S779insG	Lung adenocarcinoma
Kinase	p.S779 P780insVGS	Lung adenocarcinoma
Kinase	p.P780 Y781insGSP	Lung adenocarcinoma
Kinase	p.R784C	Lung NSCLC
Kinase	p.G787G	Lung NSCLC
Kinase	p.T791I	Lung NSCLC
Kinase	p.T793T	Hepatocellular carcinoma
Kinase	p.Q799P	Stomach adenocarcinoma
Kinase	p.G804S	Lung adenocarcinoma
Kinase	p.L823L	Lung NSCLC
Kinase	p.I829T	Lung adenocarcinoma
Kinase	p.V842I	Rectal adenocarcinoma Stomach adenocarcinoma
Kinase	p.N857S	Ovary serous carcinoma
Kinase	p.L869Q	Stomach adenocarcinoma
Kinase	p.H878Y	Hepatocellular carcinoma

Kinase	p.R896C	Breast ductal carcinoma
Kinase	p.W906*	Lung adenocarcinoma
Kinase	p.E914K	Glioma

## SOURCES

---

- Forbes SA, Bhamra G, Bamford S, Dawson E, Kok C, Clements J, Menzies A, Teague JW, Futreal PA, Stratton MR. The Catalog of Somatic Mutations in Cancer (COSMIC). *Curr Protocols Hum Genet.* 2008 Apr; Chapter 10: Unit 10.11.
- Ding L, Getz G, Wheeler DA, Mardis ER, McLellan MD, Cibulskis K, Sougnez C, Greulich H, Muzny DM, Morgan MB, Fulton L, Fulton RS, Zhang Q, Wendl MC, Lawrence MS, Larson DE, Chen K, Dooling DJ, Sabo A, Hawes AC, Shen H, Jhangiani SN, Lewis LR, Hall O, Zhu Y, Mathew T, Ren Y, Yao J, Scherer SE, Clerc K, Metcalf GA, Ng B, Milosavljevic A, Gonzalez-Garay ML, Osborne JR, Meyer R, Shi X, Tang Y, Koboldt DC, Lin L, Abbott R, Miner TL, Pohl C, Fewell G, Haipek C, Schmidt H, Dunford-Shore BH, Kraja A, Crosby SD, Sawyer CS, Vickery T, Sander S, Robinson J, Winckler W, Baldwin J, Chirieac LR, Dutt A, Fennell T, Hanna M, Johnson BE, Onofrio RC, Thomas RK, Tonon G, Weir BA, Zhao X, Ziaugra L, Zody MC, Giordano T, Orringer MB, Roth JA, Spitz MR, Wistuba, II, Ozenberger B, Good PJ, Chang AC, Beer DG, Watson MA, Ladanyi M, Broderick S, Yoshizawa A, Travis WD, Pao W, Province MA, Weinstock GM, Varmus HE, Gabriel SB, Lander ES, Gibbs RA, Meyerson M, Wilson RK. Somatic mutations affect key pathways in lung adenocarcinoma. *Nature* 2008;455(7216):1069–1075.
- Comprehensive genomic characterization defines human glioblastoma genes and core pathways. *Nature* 2008;455(7216):1061–1068.

