



DB050: EGFR (I12)

Background:

The EGFR family is a group of four structurally similar tyrosine kinases (EGFR, HER2/neu, ErbB-3, and ErbB-4) that dimerize on binding with a number of ligands, including EGF and transforming growth factor alpha (1&2). The 170 kDa epidermal growth factor receptor binds EGF which activates a tyrosine-specific protein kinase activity intrinsic to the receptor (3&4). Epidermal growth factor receptor overexpression is pronounced in virtually all squamous carcinomas and is also found in > or = 65% of large cell and adenocarcinomas. It is not expressed in situ by small cell lung carcinoma. Overexpression of EGFR is one of the earliest and most consistent abnormalities in bronchial epithelium of high-risk smokers (1).

Origin:

EGFR (I12) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to a sequence near the carboxy terminus of human EGFR.

Product Details:

Each vial contains 200 µg/ml of affinity purified rabbit IgG EGFR (I12) DB050, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

Competition Studies:

A blocking peptide is also available, DB050P, for use in competition studies. Each vial contains 100 µg of peptide in 0.5 ml PBS with 0.1% sodium azide and 100 µg BSA.

Specificity:

EGFR (I12) DB050 reacts with EGFR of mouse, rat, and human origin by western blotting, immunoprecipitation, and immunohistochemistry (including paraffin-embedded sections). Western blotting starting dilution: 1:200. A431 lysates can be used as a positive control.

Storage:

Store this product at 4° C, do not freeze. The product is stable for one year from the date of shipment.

References:

1. Franklin WA, Veve R, Hirsch FR, Helfrich BA, Bunn PA Jr. Epidermal growth factor receptor family in lung cancer and premalignancy. *Semin Oncol* 2002 Feb;29(1 Suppl 4):3-14.
2. Yarden Y. The EGFR family and its ligands in human cancer, signalling mechanisms and therapeutic opportunities. *Eur J Cancer* 2001 Sep; 37 Suppl 4: S3-8.
3. Reynolds F.H. Jr., Todaro G.J., Fryling C., and Stephenson J.R. Human transforming growth factors induces tyrosine phosphorylation of EGR receptors. *Nature* 1981 292: 259-262.
4. Chen W.S., Lazar C.S., Poenie M, Tsien R.Y., Gill G.N., Rosenfeld M.G. Requirement for intrinsic protein tyrosine kinase in the immediate and late actions of the EGF receptor. *Nature* 1987 328: 820-823.