**BGRAOUTD**

The EGFR receptor family comprises several related receptor tyrosine kinases that are frequently overexpressed in a variety of carcinomas. Members of this receptor family include EGFR (HER1), Neu (ErbB-2, HER2), ErbB-3 (HER3) and ErbB-4 (HER4), which form either homodimers or heterodimers upon ligand binding. Exons in the EGFR gene product are frequently either deleted or duplicated to produce deletion mutants (DM) or tandem duplication mutants (TDM), respectively, which are detected at various molecular weights. EGFR binds several ligands, including epidermal growth factor (EGF), transforming growth factor alpha (TGFα), amphiregulin and heparin-binding-EGF (HB-EGF). Ligand binding promotes the internalization of EGFR via Clathrin-coated pits and its subsequent degradation in response to its intrinsic tyrosine kinase. EGFR is involved in organ morphogenesis, maintenance and repair of tissues, and its subsequent degradation in response to its intrinsic tyrosine kinase is associated with tumor progression. The oncogenic effects of EGFR include initiation of DNA synthesis, enhanced cell growth, invasion, and metastasis. Abrogation of EGFR results in cell cycle arrest, apoptosis or dedifferentiation of cancer cells, suggesting that EGFR may be an effective therapeutic target.

**CHROMOSOMAL LOCATION**

Genetic locus: EGFR (human) mapping to 7p11.2; Egfr (mouse) mapping to 11A2.

**SOURCE**

EGFR (528) is a mouse monoclonal antibody mapping to a cell surface epitope of EGFR receptor of human origin.

**PRODUCT**

Each vial contains 200 µg IgG₂a in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EGFR (528) is available conjugated to agarose (sc-120 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to either phycoerythrin (sc-120 PE), fluorescein (sc-120 FITC), Alexa Fluor® 488 (sc-120 AF488) or Alexa Fluor® 647 (sc-120 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

In addition, EGFR (528) is available conjugated to either PerCP (sc-120 PerCP) or PerCP-Cy5.5 (sc-120 PCPC5), 100 tests in 2 ml, for IF, IHC(P) and FCM.

**APPLICATIONS**

EGFR (528) is recommended for detection of EGFR of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:500-1:5000) and flow cytometry (1 µg per 1 x 10⁶ cells). EGFR (528) is also recommended for detection of EGFR in additional species, including canine.

Suitable for use as control antibody for EGFR siRNA (h): sc-29301, EGFR siRNA (m): sc-29302, EGFR shRNA Plasmid (h): sc-29301-SH, EGFR shRNA Plasmid (m): sc-29302-SH, EGFR shRNA (h) Lentiviral Particles: sc-29301-V and EGFR shRNA (m) Lentiviral Particles: sc-29302-V.

Molecular Weight of EGFR: 170 kDa.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.