

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse EGFR in Western blots. In Western blots, approximately 20% cross-reactivity with recombinant human (rh) EGFR is observed and less than 1% cross-reactivity with rhErbB2, rhErbB3, and rhErbB4 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse EGFR Leu25-Ser647 Accession # Q01279
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

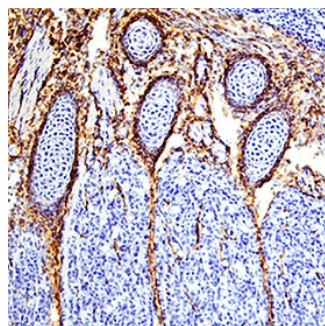
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse EGFR Fc Chimera (Catalog # 1280-ER)
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



EGFR in Mouse Embryo. EGFR was detected in immersion fixed frozen sections of mouse embryo (13 d.p.c.) using Goat Anti-Mouse EGFR Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF1280) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to developing muscle. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The EGFR subfamily of receptor tyrosine kinases comprises four members: EGFR (also known as Her1, ErbB1, or ErbB), ErbB2 (Neu, Her2), ErbB3 (Her3), and ErbB4 (Her4). All family members are type I transmembrane glycoproteins. They contain an extracellular ligand binding domain containing two cysteine-rich domains and a cytoplasmic domain containing a membrane-proximal tyrosine kinase domain followed by multiple tyrosine autophosphorylation sites (1, 2). The mouse EGFR cDNA encodes a 1210 amino acid (aa) precursor with a 24 aa signal peptide, a 623 aa extracellular domain (ECD), a 23 aa transmembrane segment, and a 540 aa cytoplasmic domain (3). Soluble receptors consisting of the extracellular ligand binding domain are generated by alternate splicing in human and mouse (4-6). Within the ECD, mouse EGFR shares 88% and 93% aa sequence identity with human and rat EGFR, respectively. It shares 44-48% aa sequence identity with the ECD of mouse ErbB2, ErbB3, and ErbB4. EGFR binds a subset of the EGF family ligands, including EGF, amphiregulin, TGF- α , betacellulin, epiregulin, HB-EGF, and epigen (1, 2). Ligand binding induces EGFR homodimerization as well as heterodimerization with ErbB2, resulting in kinase activation, heterodimerization tyrosine phosphorylation and cell signaling (7-11). EGFR can also be recruited to form heterodimers with the ligand-activated ErbB3 or ErbB4. EGFR signaling regulates multiple biological functions including cell proliferation, differentiation, motility, and apoptosis (12, 13). EGFR is over-expressed in a wide variety of tumors and is the target of several anti-cancer drugs (14).

References:

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