Mouse ErbB3/Her3 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4518

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse ErbB3/Her3 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 50% cross-reactivity with recombinant human ErbB3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse ErbB3/Her3 Ser20-His641 Accession # Q61526
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

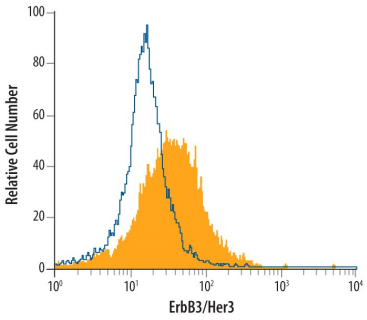
APPLICATIONS

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 ErbB3/Her3 Fc Chimera (Catalog # 4518-RB)
Flow Cytometry	2.5 µg/10^6 cells	See Below
Immunohistochemistry	5-15 µg/mL	See Below

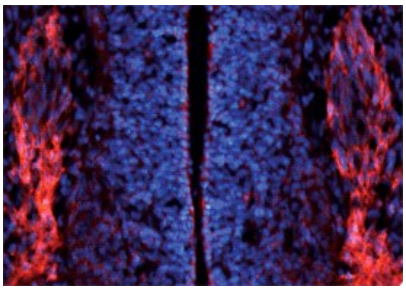
DATA

Flow Cytometry



Detection of ErbB3/Her3 in C2C12 Mouse Cell Line by Flow Cytometry. C2C12 mouse myoblast cell line was stained with Sheep Anti-Mouse ErbB3/Her3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4518, filled histogram) or control antibody (Catalog # 5-001-A, open histogram), followed by Allophycocyanin-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # F0127).

Immunohistochemistry



ErbB3/Her3 in Embryonic Mouse Dorsal Root Ganglion. ErbB3/Her3 was detected in immersion fixed frozen sections of embryonic mouse dorsal root ganglion (E10.5) using 10 µg/mL Mouse ErbB3/Her3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4518) overnight at 4 °C. Tissue was stained with the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). View our protocol for Fluorescent 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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 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.

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BACKGROUND

ErbB3, also called Her3 (human epidermal growth factor receptor 3) in humans, is a type I transmembrane glycoprotein that is a member of the ErbB family of tyrosine kinase receptors named for a viral oncogene (1-3). ErbB family members serve as receptors for the EGF family of growth factors (1-3). Mouse ErbB3 contains a 19 amino acid (aa) signal sequence, a 622 aa extracellular domain (ECD), a 24 aa transmembrane region, and a 677 aa cytoplasmic domain (4). Human ErbB3 has four isoforms created by intron read-through and truncation of the molecule (5). Three of these are secreted and at least one can inhibit ErbB3 activity (6). Little information is available concerning mouse ErbB3 isoforms. The mouse ErbB3 ECD shares 97%, 93%, 92%, 91%, 89% and 88% aa identity with rat, human, bovine, equine, canine and opossum ErbB3, respectively. ErbB3 is found in epithelial cell layers of gastrointestinal, reproductive, urinary, endocrine and nervous systems, skin and muscle (3). Among ErbB family members, only ErbB3 lacks a working kinase domain, requiring heterodimerization with another ErbB receptor for signaling (1-3). The heterodimer of ErbB3 with ErbB2, which has no known ligands of its own, is expressed in the majority of breast, skin, ovary and gastrointestinal tumors and transduces a highly mitogenic signal in response to neuregulin 1 (NRG1; heuregulin 1) or NRG2 (3, 7-9). These ligands also bind ErbB4 (1). Signaling is aided by the six consensus binding motifs for the SH2 domain and one for the SH3 domain of the regulatory p85 subunit of phosphoinositide 3-kinase (10, 11). Deletion studies in mice demonstrate non-redundant roles for ErbB3 in development of Schwann cells, neural crest cells and heart valves (12, 13). ErbB3, ErbB2 and neuregulin are all required for formation of the sympathetic nervous system (14).

References:

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