10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Mouse Erbb3 Antibody (P1076)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21398a

Product Information

Application	WB, E
Primary Accession	Q61526
Reactivity	Rat, Mouse
Predicted	Bovine, Canine
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB50337
Calculated MW	147613

Additional Information

Gene ID	13867
Other Names	Receptor tyrosine-protein kinase erbB-3, Glial growth factor receptor, Proto-oncogene-like protein c-ErbB-3, Erbb3
Target/Specificity	This Mouse Erbb3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 1076-1110 amino acids from the region of Mouse Erbb3.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse Erbb3 Antibody (P1076) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Erbb3
Function	Tyrosine kinase receptor that, despite substitutions of key catalytic residues in the kinase domain, retains residual catalytic activity enabling autophosphorylation. Functions primarily as a heterodimer, preferentially partnering with ERBB2/HER2, which phosphorylates ERBB3 on specific

tyrosine residues and provides the kinase activity required for downstream signaling. Binds neuregulins NRG1 and NRG2 through its extracellular domain, which induces conformational change from a tethered autoinhibited state to an extended conformation competent for dimerization. Upon heterodimerization and trans-phosphorylation, acts as the most efficient activator of the PI3K/AKT pathway within the ErbB family. Also activates the RAS/MAPK/ERK cascade to promote cell proliferation (By similarity). Plays an essential role in cardiac development; required for normal formation of the endocardial cushion and ventricular trabeculation during embryogenesis (PubMed:9362461). Critical for peripheral nervous system development, where neuregulin- 1/ERBB3 signaling drives Schwann cell survival, proliferation, and differentiation, and is required for axonal myelination (PubMed:9338783). Involved in epithelial morphogenesis and mammary gland development (PubMed:19019207). Also involved in the regulation of myeloid cell differentiation. Participates in a regulatory feedback loop whereby pathway activation induces transcriptional up-regulation of ERBB3 expression. Participates in vesicular sorting by stabilizing the ARF6-GGA3-RABEP1 endosomal sorting complex, to promote early recycling of TFRC and ITGB1. May also be activated by additional ligands including CSPG5 and EGFL6; the latter triggers assembly of an ERBB2/ERBB3/ITGB3 signaling complex leading to ERK phosphorylation and cell proliferation (By similarity).

Cellular Location Membrane; Single-pass type I membrane protein

Tissue Location In the muscle, expression localizes to the synaptic sites of muscle fibers

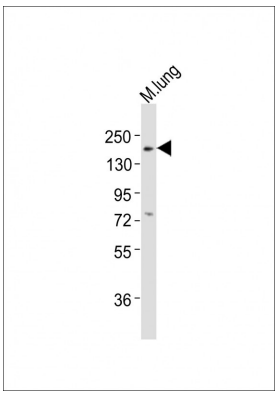
Background

Binds and is activated by neuregulins and NTAK. May also be activated by CSPG5.

References

Yamauchi J.,et al.Submitted (JUL-2004) to the EMBL/GenBank/DDBJ databases.
Moscoso L.M.,et al.Dev. Biol. 172:158-169(1995).
Kwon H.S.,et al.J. Biol. Chem. 288:26357-26371(2013).

Images



Anti-Erbb3 Antibody (P1076)at 1:2000 dilution + mouse lung lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 148 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.