Human/Mouse Kilon/NEGR1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF5394

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects Kilon/NEGR1 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) LAMP and rhNCAM-L1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Kilon/NEGR1 Val38-Gly324 Accession # Q7Z3B1
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.

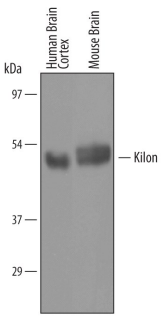
APPLICATIONS

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	1 µg/mL	See Below

DATA

Western Blot



Detection of Human and Mouse Kilon/NEGR1 by Western Blot. Western blot shows lysates of human brain cortex and mouse brain tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse Kilon/NEGR1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5394) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Kilon/NEGR1 at approximately 46 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

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.

BACKGROUND

Kindred of IgLON (Kilon; also neuronal growth regulator 1 (NEGR1) and neurotractin) is a 46 kDa member of the IgLON family of molecules. This cell adhesion family includes the proteins LAMP, OBCAM, neurotrimin, CEPU-1, AvGP50, and GP55 (1). Human Kilon is synthesized as a 354 amino acid (aa) precursor that contains a 37 aa signal sequence, a 287 aa mature chain, and a 30 aa propeptide. The mature chain consists of three C2 Ig-like domains, six potential sites for N-linked glycosylation, and a GPI anchor. In addition, there are three sets of cysteines that have the potential to form intradomain disulfide linkages in each of the mature chain's Ig-like domains (1). Human Kilon shares 97% aa sequence identity with mouse and rat Kilon. Expression of Kilon is restricted to the brain, specifically in the cerebrum, brain stem, and hippocampus, with much less expression in the cerebellum (1). In the rat, it was shown that Kilon is already expressed in the E16 stage, and its level gradually increases during development (1). In the cerebral cortex, numerous puncta of Kilon immunoreactivity were visible in all regions, and most were densely distributed in large neurons of layer V (1). These neurons were identified as pyramidal neurons because of their soma location in layer V, large soma size, and extension of their apical dendrite to layer I (1). Kilon may be involved in cell-adhesion and may function as a trans-neural growth-promoting factor in regenerative axon sprouting in the mammalian brain (1, 2).

References:

1. Funatsu, N. *et al.* (1999) J. Biol. Chem. **274**:8224.
2. Marg, A. *et al.* (1999) J. Cell Biol. **145**:865.

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