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Anti-HOMER3 Antibody Picoband™ (monoclonal, 9G13)

Catalog # ABO14892

Specification

Anti-HOMER3 Antibody Picoband™ (monoclonal, 9G13) - Product Information

Application	**WB, FC**
Primary Accession	Q9NSC5
Host	**Mouse**
Isotype	**Mouse IgG2a**
Reactivity	**Human**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-HOMER3 Antibody Picoband™ (monoclonal, 9G13) . Tested in Flow Cytometry, WB applications. This antibody reacts with Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500 µg/ml.

Anti-HOMER3 Antibody Picoband™ (monoclonal, 9G13) - Additional Information

Gene ID 9454

Other Names
Homer protein homolog 3, Homer-3, HOMER3 (HGNC:17514)

Calculated MW
45 kDa KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human
 Flow Cytometry, 1-3 µg/1x10^6 cells, Human

Subcellular Localization
postsynaptic density; Cytoplasm; synapse

Contents
Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen
E. coli-derived human HOMER3 recombinant protein (Position: R282-A360). Human HOMER3 shares 88.6% and 89.9% amino acid (aa) sequence identity with mouse and rat HOMER3, respectively.

Cross Reactivity
No cross-reactivity with other proteins.

Storage	**Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.**

Anti-HOMER3 Antibody Picoband™ (monoclonal, 9G13) - Protein Information

Name HOMER3 (HGNC:17514)

Function
Postsynaptic density scaffolding protein. Binds and cross- links cytoplasmic regions of GRM1, GRM5, ITPR1, DNM3, RYR1, RYR2, SHANK1 and SHANK3. By physically linking GRM1 and GRM5 with ER- associated ITPR1 receptors, it aids the coupling of surface receptors to intracellular calcium release. Isoforms can be differently regulated and may play an important role in maintaining the plasticity at glutamatergic synapses. Negatively regulates T cell activation by inhibiting the calcineurin-NFAT pathway. Acts by competing with calcineurin/PPP3CA for NFAT protein binding, hence preventing NFAT activation by PPP3CA (PubMed:18218901).

Cellular Location
Cytoplasm. Postsynaptic density. Synapse. Note=Postsynaptic density of neuronal cells.

Anti-HOMER3 Antibody Picoband™ (monoclonal, 9G13) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-HOMER3 Antibody Picoband™ (monoclonal, 9G13) - Images

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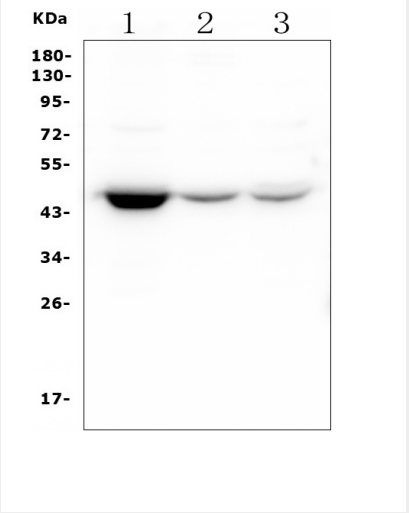

Figure 1. Western blot analysis of HOMER3 using anti-HOMER3 antibody (M09145).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human U-87MG tissue lysates,
Lane 2: human Hela whole cell lysates,
Lane 3: human Caco-2 whole cell lysates,
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-IL-32 antigen affinity purified polyclonal antibody (Catalog # M09145) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for HOMER3 at approximately 45KD. The expected band size for HOMER3 is at 40KD.

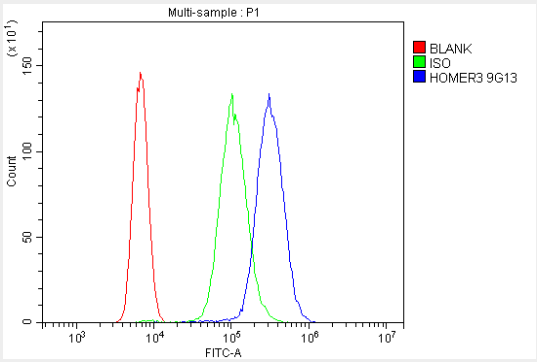

Figure 2. Flow Cytometry analysis of U937 cells using anti-HOMER3 antibody M09145).
Overlay histogram showing U937 cells stained with M09145 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-HOMER3 Antibody (M09145, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-HOMER3 Antibody Picoband™ (monoclonal, 9G13) - Background

Homer protein homolog 3 is a protein that in humans is encoded by the HOMER3 gene. This gene encodes a member of the HOMER family of postsynaptic density scaffolding proteins that share a

similar domain structure consisting of an N-terminal Enabled/vasodilator-stimulated phosphoprotein homology 1 domain which mediates protein-protein interactions, and a carboxy-terminal coiled-coil domain and two leucine zipper motifs that are involved in self-oligomerization. The encoded protein binds numerous other proteins including group I metabotropic glutamate receptors, inositol 1,4,5-trisphosphate receptors and amyloid precursor proteins and has been implicated in diverse biological functions such as neuronal signaling, T-cell activation and trafficking of amyloid beta peptides.