

Anti-EEA1 Antibody [B0-A8]

M1503-1



Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 162 kDa
Clone number:	B0-A8

Description: EEA1 localizes exclusively to early endosomes and has an important role in endosomal trafficking. EEA1 binds directly to the phospholipid phosphatidylinositol 3-phosphate through its C-terminal FYVE domain and forms a homodimer through a coiled coil. EEA1 acts as a tethering molecule that couples vesicle docking with SNAREs such as N-ethylmaleimide sensitive fusion protein, bringing the endosomes physically closer and ultimately resulting in the fusion and delivery of endosomal cargo. Due to the protein's importance in vesicular trafficking, a number of intracellular bacteria prevent EEA1 recruitment to the vacuole. *Mycobacterium tuberculosis* is known to inhibit the recruitment of EEA1 to the phagosomal membrane through CamKII. *Legionella pneumophila* also prevents EEA1 recruitment through a currently unknown mechanism.[5] Interestingly, the related pathogen *Legionella longbeachae* recruits EEA1 and appears to replicate within a modified early endosome.

Immunogen: Synthetic peptide of the N terminal residues of Human EEA1.

Positive control: HeLa cell lysate, Daudi cell lysate, A431 cell lysate, SH-SY5Y cell lysate, NIH/3T3 cell lysate, C6 cell lysate, human prostate tissue, mouse prostate tissue.

Subcellular location: Cytoplasm, early endosome membrane.

Database links: SwissProt: Q15075 Human | Q8BL66 Mouse | A0A0G2K051 Rat

Recommended Dilutions:

WB	1:2,000-1:10,000
IHC-P	1:50-1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

Technical: 0086-571-89986345

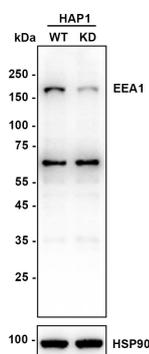
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Images

Fig1: Western blot analysis of EEA1 on different lysates with Mouse anti-EEA1 antibody (M1503-1) at 1/10,000 dilution.

Lane 1: HAP1-parental cell lysate
Lane 2: HAP1-EEA1 KD cell lysate



Lysates/proteins at 10 µg/Lane.

Predicted band size: 162 kDa
Observed band size: 162 kDa

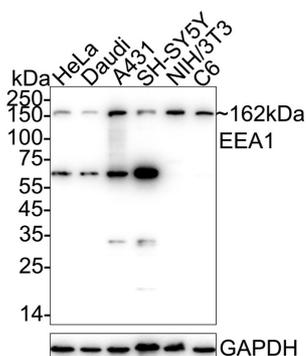
Exposure time: 20 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (M1503-1) at 1/10,000 dilution was used in K1803 at 4°C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Western blot analysis of EEA1 on different lysates with Mouse anti-EEA1 antibody (M1503-1) at 1/2,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: Daudi cell lysate
Lane 3: A431 cell lysate
Lane 4: SH-SY5Y cell lysate
Lane 5: NIH/3T3 cell lysate
Lane 6: C6 cell lysate



Lysates/proteins at 20 µg/Lane.

Predicted band size: 162 kDa
Observed band size: 162 kDa

Exposure time: 10 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (M1503-1) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

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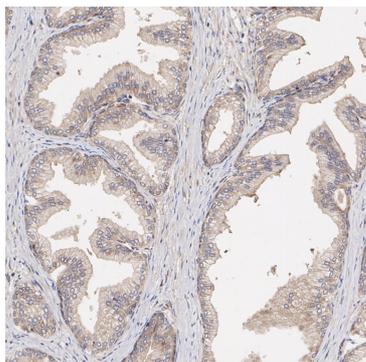


Fig3: Immunohistochemical analysis of paraffin-embedded human prostate tissue with Mouse anti-EEA1 antibody (M1503-1) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (M1503-1) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

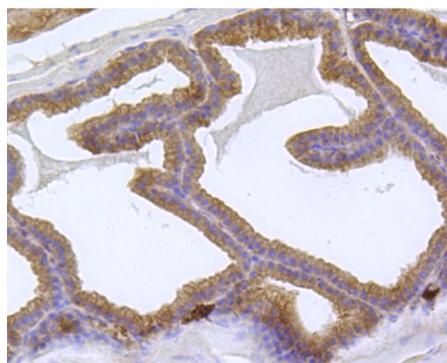


Fig4: Immunohistochemical analysis of paraffin-embedded mouse prostate tissue using anti-EEA1 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the antibody (M1503-1) at 1/400 dilution, for 30 minutes at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. Counter stained with hematoxylin and mounted with DPX.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Gaullier J.-M et al. Interaction of the EEA1 FYVE finger with phosphatidylinositol 3-phosphate and early endosomes. Role of conserved residues. *J Biol Chem* 275:24595-24600 (2000).
2. Kauppi M et al. The small GTPase Rab22 interacts with EEA1 and controls endosomal membrane trafficking. *J Cell Sci* 115:899-911 (2002).
3. Merithew E et al. Determinants of Rab5 interaction with the N-terminus of early endosome antigen 1. *J Biol Chem* 278:8494-8500 (2003).

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