

PRODUCT INFORMATION

Product name : CLASP2 antibody

Product type : Primary antibodies

Description : Rabbit polyclonal to CLASP2

Immunogen : 3 synthetic peptides (human) conjugated to KLH

Reacts with : Hu, Ms

Tested applications : ELISA, WB and IF

GENE INFORMATION

Gene Symbol : CLASP2

Gene Name : cytoplasmic linker associated protein 2

Ensembl ID : ENSG00000163539

Entrez GeneID : 23122

GenBank Accession number : AB014527

Swiss-Prot : O75122

Molecular weight of CLASP2 : 165.9 & 108.6kDa

Function : Microtubule plus-end tracking protein that promotes the stabilization of dynamic microtubules. Involved in the nucleation of noncentrosomal microtubules originating from the trans-Golgi network (TGN). Required for the polarization of the cytoplasmic microtubule arrays in migrating cells towards the leading edge of the cell. May act at the cell cortex to enhance the frequency of rescue of depolymerizing microtubules by attaching their plus-ends to cortical platforms composed of ERC1 and PHLDB2. This cortical microtubule stabilizing activity is regulated at least in part by phosphatidylinositol 3-kinase signaling. Also performs a similar stabilizing function at the kinetochore which is essential for the bipolar alignment of chromosomes on the mitotic spindle. Acts as a mediator of ERBB2-dependent stabilization of microtubules at the cell cortex.

Expected subcellular localization : Cytoplasm › cytoskeleton. Cytoplasm › cytoskeleton › microtubule organizing center › centrosome. Chromosome › centromere › kinetochore. Cytoplasm › cytoskeleton › spindle. Golgi apparatus. Golgi apparatus › trans-Golgi network. Cell membrane. Cell projection › ruffle membrane. Note: Localizes to microtubule plus ends. Localizes to centrosomes, kinetochores and the mitotic spindle from prometaphase. Subsequently localizes to the spindle midzone from anaphase and to the midbody from telophase. In migrating cells localizes to the plus ends of microtubules within the cell body and to the entire microtubule lattice within the lamella. Localizes to the cell cortex and this requires ERC1 and PHLDB2. The MEMO1-RHOA-DIAPH1 signaling pathway controls localization of the phosphorylated form to the cell membrane.

Expected tissue specificity : Brain-specific

APPLICATION NOTE

Recommended dilution :

- **ELISA:** Antibody specificity was verified by direct ELISA against the 3 immunogen peptides. A titer of 1/45000 has been determined. Appropriate specificity controls were run.
- **WB:** 1/1000.
- **IF:** 1/100.

Optimal dilutions/concentration should be determined by the end user.

Raised in : Rabbit

Clonality : Polyclonal

Isotype : IgG

Purity : Purified antibody

Storage buffer : Containing a final concentration of PBS/glycerol (V/V), 0.1% BSA and 0.01% Thimerosal.

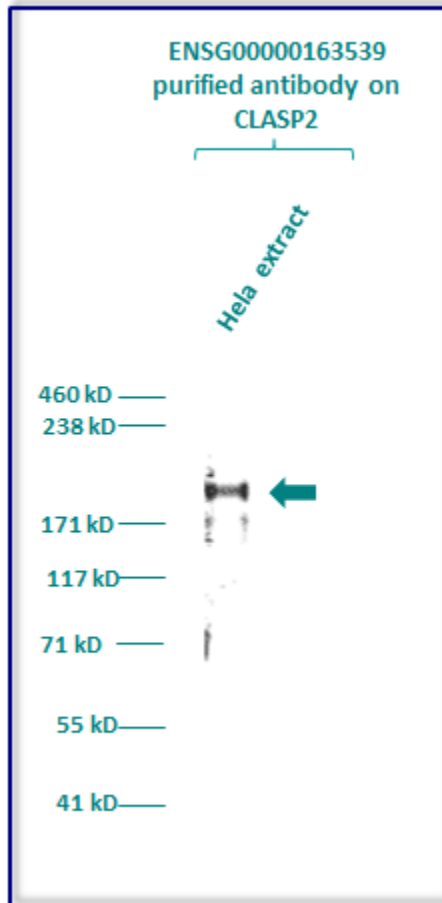
Form : Liquid

Storage instruction : Store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

WESTERN BLOT ON RECOMBINANT PROTEIN

Western blot analysis of CLASP2 expression in protein extract of HeLa (Human cervix adenocarcinoma) cell line. The purified antibody ENSG00000163539 has been tested at 1/1000.

Molecular weight of CLASP2 isoforms : 165.9 & 108.6kD



Gel concentration: 15%

Blocking: in 5% non-fat milk-PBST solution

1st Antibody: The antibodies are diluted in blocking buffer.

- Dilute the purified antibody ENSG00000163539 at 1:1000
- 60 minutes of incubation**

2nd Antibody: The antibody is diluted in blocking buffer.

- Dilute the anti-Rabbit IgG HRP conjugated at 1/10000
- 60 minutes of incubation**

IMMUNOFLUORESCENCE ANALYSIS

Immunofluorescence analysis of CLASP2 expression in HeLa (Human cervix adenocarcinoma) cell line. The purified antibody ENSG00000163539 has been tested at 1:100.

Blue staining : nucleus

Green staining: (DM1A) cytoskeleton (microtubules/ α -tubuline)

Red staining : anti-CLASP2 antibody

Expected subcellular localization : Cytoplasm> cytoskeleton. Cytoplasm> cytoskeleton>centrosome. Chromosome>centromere>kinetochore. Cytoplasm>cytoskeleton>spindle. Golgi apparatus>trans-Golgi network.

Note: Localizes to microtubule plus ends. Localizes to centrosomes, kinetochores and the mitotic spindle from prometaphase. Subsequently localizes to the spindle midzone from anaphase and to the midbody from telophase. In migrating cells localizes to the plus ends of microtubules within the cell body and to the entire microtubule lattice within the lamella. Localizes to the cell cortex and this requires ERC1 and PHLDB2.

