

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse CHL-1/L1CAM-2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 40% cross-reactivity with recombinant human CHL-1 is observed.                                                                                            |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse CHL-1/L1CAM-2 Ala25-Gln1043 (Leu227-Gln242 del, Ala243Ser)<br>Accession # BAC30699                                                                                                                                    |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## 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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

Close homolog of L1 (CHL-1), also known as cell adhesion L1-like (CALL) and L1 cell adhesion molecule 2 (L1CAM-2), belongs to the L1 subfamily of immunoglobulin (Ig) superfamily cell adhesion molecules, which also includes L1, neurofascin and NgCAM-related cell adhesion molecule (NrCAM) (1-3). These molecules are type I transmembrane proteins that have 6 Ig-like domains and 4-5 fibronectin type III-like (FNIII) domains in their extracellular regions. They also share a highly conserved cytoplasmic region of approximately 110 amino acid (aa) residues containing an ankyrin-binding site. CHL-1 is expressed as a highly glycosylated 185 kDa transmembrane protein by subpopulations of neurons and glia of the central and peripheral nervous system (4, 5). Ectodomain shedding via the metalloprotease-disintegrin ADAM8 releases 165 kDa and 125 kDa soluble CHL-1 fragments, which can diffuse away to function at distant sites (6). CHL-1 is not capable of homotypic interactions, but an extracellular binding partner of CHL-1 has not been identified (4). Human *CHL1* has been mapped to chromosome 3p26 and is a candidate gene for 3p<sup>-</sup> syndrome characterized by mental impairment (7). A missense *CHL1* polymorphism associated increased risk of schizophrenia, has also been reported (8). The functional importance of CHL-1 in the nervous system is also evident in CHL-1 deficient mice, which display behavioral abnormalities and show misguided axons within the hippocampus and olfactory tract (9). Enhanced ectodomain-shedding of CHL-1 is also observed in Wobbler mice, the neurodegenerative mutant mice (6). *In vitro*, soluble or substrate-coated CHL-1 promotes neurite outgrowth and neuronal survival of both cerebellar and hippocampal neurons. Cell surface CHL-1 interacts with integrins *in cis* to potentiate integrin-dependent cell migration toward extracellular matrix proteins (10). For this enhanced cell motility, CHL-1 linkage to the actin cytoskeleton via interaction between ankyrin and the CHL-1 cytoplasmic region is required.

## PRODUCT SPECIFIC NOTICES

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