

DESCRIPTION

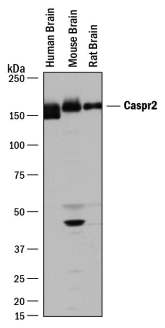
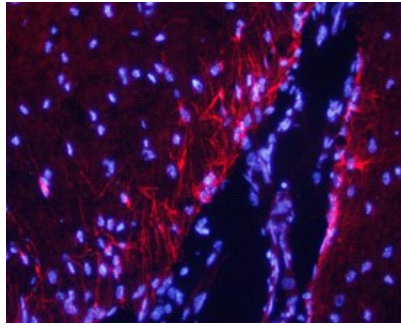
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Caspr2 in direct ELISAs and human, mouse, and rat Caspr2 in Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant human Caspr1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Caspr2 isoform 1 Pro29-Ala1262 Accession # Q9UHC6
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	2 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p> 	<p>Detection of Human, Mouse, and Rat Caspr2 by Western Blot. Western blot shows lysates of human brain tissue, mouse brain tissue, and rat brain tissue. PVDF membrane was probed with 2 µg/mL of Sheep Anti-Human/Mouse/Rat Caspr2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5145) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Caspr2 at approximately 160-170 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunohistochemistry</p>  <p>Caspr2 in Mouse Brain. Caspr2 was detected in perfusion fixed frozen sections of mouse brain using 10 µg/mL Sheep Anti-Human/Mouse/Rat Caspr2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5145) overnight at 4 °C. Tissue was stained with the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). View our protocol for Fluorescent IHC Staining of Frozen Tissue Sections.</p>
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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. <ul style="list-style-type: none"> • 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

Caspr2 (CNTNAP2, Contactin-associated protein-like 2 and Cell recognition molecule Caspr2) is a 160-170 kDa glycoprotein, a member of the neurexin family of proteins. It is predominantly expressed in nervous system and likely play a role in the formation of functional distinct domains critical for saltatory conduction of nerve impulses in myelinated nerve fibers. Seems to demarcate the juxtaparanodal region of the axo-glial junction. Caspr2 and closely related molecule Caspr/Paranodin demarcate distinct subdomains in myelinated axons. While contactin-associated protein (Caspr) is present at the paranodal junctions, Caspr2 is precisely colocalized with Shaker-like K⁺ channels in the juxtaparanodal region. Over aa 29-1262, human CASPR2 shares 94% aa sequence identity with mouse Caspr2.