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# Claudin 11

Cat.No. 241 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

## **Data Sheet**

Reconstitution/ Storage	50 $\mu g$ specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 $\mu l H_2O$ to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) (see remarks) IP: not tested yet ICC: 1 : 500 IHC: 1 : 500 IHC-P/FFPE: 1 : 200 up to 1 : 500
Immunogen	Synthetic peptide corresponding to AA 188 to 207 from rat Claudin11 (UniProt Id: Q99P82)
Reactivity	Reacts with: human (O75508), rat (Q99P82), mouse (Q60771), cow, pig. Other species not tested yet.
Specificity	Specific for claudin 11.
matching control	241-0P
Remarks	<b>WB</b> : Moderate heating (50°C) of samples prior SDS-PAGE improves signal strength.

#### TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

**Claudin 11**, also known as **O**ligodendrocyte **s**pecific **p**rotein (**OSP**), is one of the most abundant components of CNS myelin where it locates to the interlamellar strands in myelin sheaths. To date more than 20 members of the claudin family have been identified. They are expressed in epithelial and endothelial cells in all tight junction bearing tissues. Claudins share a common transmembrane topology with 4 transmembrane spanning domains and two extracellular loops.

### **Selected References SYSY Antibodies**

Immunosignals of Oligodendrocyte Markers and Myelin-Associated Proteins Are Critically Affected after Experimental Stroke in Wild-Type and Alzheimer Modeling Mice of Different Ages. Michalski D, Keck AL, Grosche J, Martens H, Härtig W Frontiers in cellular neuroscience (2018) 12: 23. **IHC; tested species: mouse** 

## **Selected General References**

Tight junctions potentiate the insulative properties of small CNS myelinated axons. Devaux J, Gow A The Journal of cell biology (2008) 183(5): 909-21.

Compartmentalization established by claudin-11-based tight junctions in stria vascularis is required for hearing through generation of endocochlear potential. Kitajiri S, Miyamoto T, Mineharu A, Sonoda N, Furuse K, Hata M, Sasaki H, Mori Y, Kubota T, Ito J, Furuse M, et al. Journal of cell science (2004) 117(Pt 21): 5087-96.

OSP/claudin-11 forms a complex with a novel member of the tetraspanin super family and beta1 integrin and regulates proliferation and migration of oligodendrocytes. Tiwari-Woodruff SK, Buznikov AG, Vu TQ, Micevych PE, Chen K, Kornblum HI, Bronstein JM The Journal of cell biology (2001) 153(2): 295-305.

Developmental expression of OSP/claudin-11. Bronstein JM, Chen K, Tiwari-Woodruff S, Kornblum HI Journal of neuroscience research (2000) 60(3): 284-90.

Claudin-11/OSP-based tight junctions of myelin sheaths in brain and Sertoli cells in testis. Morita K, Sasaki H, Fujimoto K, Furuse M, Tsukita S The Journal of cell biology (1999) 145(3): 579-88.

Oligodendrocyte-specific protein (OSP) is a major component of CNS myelin. Bronstein JM, Micevych PE, Chen K Journal of neuroscience research (1997) 50(5): 713-20.