EXBIO Antibodies

PRODUCT DATA SHEET

11-593-C025

Monoclonal Antibody to CD230 / Human Prion Protein (PrP) Purified Antibody (0.025 mg)

Clone:	EM-20
Isotype:	Mouse IgG2a
Specificity:	The mouse monoclonal antibody EM-20 recognizes human prion protein (PrP). Diglycosylated form of PrP has ~ 40 kDa, monoglycosylated form ~ 30 kDa, and nonglycosylated form ~ 19-21 kDa. This antibody is suitable for discrimination between normal cellular prion protein (PrPc) and its conformationally changed form (PrPSc) prion protein.
Regulatory Status:	RUO
Immunogen:	Recombinant human prion protein
Species Reactivity:	Human
Application:	Western Blotting Recommended dilution: 0.5 µg/ml Note:Non-reducing conditions are essential
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified by protein-A affinity chromatography
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD230 / Human prion protein (PrP), also known as PRNP, is a ubiquitously expressed GPI-anchored cell surface glycoprotein associating with lipid raft components and functioning as a signaling molecule. CD230 / PrP plays a role in apoptosis in a cell context-dependent manner, is involved in proliferation of epithelial cells and in distribution of junction-associated proteins in human enterocytes. Conversion of this normal cellular prion protein (PrPc) into an abnormal conformer (PrPSc) is the crucial step associated with triggering the pathogenesis of the prion neurodegenerative disorders, such as the Creutzfeld-Jakob disease (CJD). Whereas PrPc is rich in alpha-helices, the PrPSc form has higher content of beta-sheets and is resistant to proteinase K.

For laboratory research only, not for drug, diagnostic or other use.

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz

References:

*Wang X, Dong CF, Shi Q, Shi S, Wang GR, Lei YJ, Xu K, An R, Chen JM, Jiang HY, Tian C, Gao C, Zhao YJ, Han J, Dong XP: Cytosolic prion protein induces apoptosis in human neuronal cell SH-SY5Y via mitochondrial disruption pathway. BMB Rep. 2009 Jul 31;42(7):444-9.

*Segarra C, Lehmann S, Coste J: Prion protein expression and processing in human mononuclear cells: the impact of the codon 129 prion gene polymorphism. PLoS One. 2009 Jun 4;4(6):e5796.

*Yang Y, Chen L, Pan HZ, Kou Y, Xu CM: Glycosylation modification of human prion protein provokes apoptosis in HeLa cells in vitro. BMB Rep. 2009 Jun 30;42(6):331-7.

*Ermonval M, Baudry A, Baychelier F, Pradines E, Pietri M, Oda K, Schneider B, Mouillet-Richard S, Launay JM, Kellermann O: PLoS One. 2009 Aug 4;4(8):e6497.

*Li C, Yu S, Nakamura F, Yin S, Xu J, Petrolla AA, Singh N, Tartakoff A, Abbott DW, Xin W, Sy MS: Binding of pro-prion to filamin A disrupts cytoskeleton and correlates with poor prognosis in pancreatic cancer. J Clin Invest. 2009 Aug 17. pii: 39542. doi: 10.1172/JCI39542. [Epub ahead of print]

Dvorakova E, Vranac T, Janouskova O, Černilec M, Koren S, Lukan A, Nováková J, Matej R, Holada K, Čurin Šerbec V: Detection of the GPI-anchorless prion protein fragment PrP226 in human brain. BMC Neurol. 2013 Sep 25;13:126.

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz