

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Tmp21/p23 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 805125
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Tmp21/p23 Ile32-Arg185 Accession # P49755
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.

Knockout Validated	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

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

BACKGROUND

Tmp21 (Transmembrane protein 21 also TMED-10, Transmembrane emp24 Domain-containing Protein 10, p24⁸¹ and p23) is a 21-23 kDa member of the EMP [endosome membrane protein] 24 /GP25L family of cargo molecules. It is ubiquitously expressed, being found associated with the ER-Golgi complex. Molecules destined for secretion are folded/processed in the ER, transported out of the ER via COP-II coated vesicles, united with other molecules in similar vesicles to form an ERGIC/ER-Golgi Intermediate Compartment, and finally delivered to the Golgi (or returned to the ER) via new (presumably COP-I) coated vesicles for terminal maturation. Tmp21 is considered part of both the COP-II and COP-I oligomer complex, the latter that arises from the ERGIC and both stabilizes the ER and allows for the selection of specific molecules targeted for secretion. It also is known to associate with the presenilin complex in the plasma membrane and downregulate γ-secretase activity. This impacts Aβ production but not AICD generation. Mature human Tmp21 is a 188 amino acid (aa) type I transmembrane protein. It contains a 154 aa luminal region (aa 32-185) that shows a membrane interaction GOLD (Golgi Dynamics) domain (aa 41-193), and a short 13 aa cytoplasmic tail (aa 207-219) that binds to COP vesicle coat complexes. Exists as both a monomer and homodimer. Over aa 32-185, human Tmp21 shares 97% aa sequence identity with mouse Tmp21.

PRODUCT SPECIFIC NOTICES

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