

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MDGA2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant human MDGA1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human MDGA2 Gln21-Asp931 Accession # Q7Z553
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.

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

MDGA2 (MAM domain-containing glycosylphosphatidylinositol anchor protein 2; also named MAMDC1) is a 130 kDa member of the Ig superfamily of proteins (1). Human MDGA2 is synthesized as a 956 amino acid (aa) precursor that contains a 25 aa signal sequence, a 906 aa mature chain, and a 25 aa propeptide. The mature chain consists of six Ig-like domains, followed by a MAM domain (aa 746-921) and a GPI anchor. In addition, there are eight potential sites for N-linked glycosylation. Mature human MDGA2 shares 98% aa sequence identity with mature mouse and rat MDGA2. MDGA2 is structurally similar to other IgCAMS, such as the L1 family and axonin 1, which have roles in cell adhesion, migration, and process outgrowth (2). Northern blot analysis shows MDGA2 expression is limited to the central and peripheral nervous system (1). Within the brain, moderate expression is observed in the cerebral cortex, the hindbrain, the basilar pons, the neocortex, the hippocampus, the amygdala, olfactory bulb, and selected nuclei of the thalamus (1). The similarity of MDGA2 to other Ig-containing molecules, and its temporal-spatial patterns of expression within restricted neuronal populations, suggest a role for MDGA2 in regulating neuronal migration, as well as other aspects of neural development, including axon guidance (1). One study shows that MDGA2 gene is implicated in neuroticism (3).

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