

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human ADAM23 in direct ELISAs.                                                                                                                                                                                                                                      |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2A</sub> Clone # 504425                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Chinese hamster ovary cell line CHO-derived recombinant human ADAM23<br>Ser60-His585<br>Accession # O75077                                                                                                                                                                  |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

**Immunohistochemistry** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

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

## BACKGROUND

ADAM23 (a disintegrin and metalloprotease domain 23; also MDC3) is a 100 kDa member of the M12B peptidase family of enzymes. It is expressed on fetal neurons in the hippocampus and cerebellum, and serves as a counter-receptor for  $\alpha_v\beta_3$  integrin. The human ADAM23 precursor is a 773 amino acid (aa) type I transmembrane (TM) protein. It contains a 227 aa cleavable proregion (aa 60-286) and a 506 aa extracellular domain (ECD) (aa 287-792) that is part of a 70 kDa mature molecule. The ECD contains a nonfunctional metalloprotease domain (aa 299-494), an integrin-binding disintegrin region (aa 511-585), and a Cys-rich domain (aa 589-611). Two splice variants exist. One shows an in-frame 46 aa substitution for aa 787-832 that generates a soluble form, while a second shows an in-frame 31 aa TM substitution for aa 787-817. Over aa 60-585, human ADAM23 shares 92% aa sequence identity with mouse ADAM23.

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