

Datasheet for ABIN7581820 **anti-Adam23 antibody (Extracellular)**



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Overview

Quantity:	50 µL
Target:	Adam23
Binding Specificity:	AA 367-381, Extracellular
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Adam23 antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunohistochemistry (IHC), Live Cell Imaging (LCI)

Product Details

Purpose:	A Rabbit Polyclonal antibody to ADAM23 (extracellular)
Immunogen:	(C)HDFSKYRQRIKQHAD, corresponding to amino acid residues 367 - 381 of mouse ADAM23
Sequence:	(C)HDFSKYRQRI KQHAD
Isotype:	IgG
Specificity:	Extracellular, N-terminus.
Predicted Reactivity:	Human,Rat - 14 out of 15 amino acid residues identical
Characteristics:	Anti-ADAM23 (extracellular) Antibody (ABIN7581820) is a highly specific antibody directed against an extracellular epitope of the mouse protein. The antibody can be used in western blot, immunohistochemistry and flow cytometry applications. It has been designed to recognize

Product Details

ADAM23 from mouse, rat and human samples.

Purification: Affinity purified on immobilized antigen.

Target Details

Target: Adam23

Alternative Name: ADAM23 ([Adam23 Products](#))

Background: Disintegrin and Metalloproteinase Domain-Containing Protein 23, MDC3, A Disintegrin And Metalloprotease 23 (ADAM23) is a member of the ADAMs family of transmembrane proteins, mostly expressed in the nervous system, and involved in traffic and stabilization of Kv1-potassium channels, synaptic transmission, neurite outgrowth, neuronal morphology and cell adhesion. ADAM23 has been linked to human pathological conditions, such as epilepsy, cancer metastasis and cardiomyopathy.[1] The ADAMs are a family of transmembrane and secreted proteins of approximately 750 amino acids in length. They differ in structural organization, function and localization. Their domains, catalytic or non-catalytic, determine their substrate recognition and protease activity. Some ADAMs show sheddase activity, which modulates functional proteins such as TNFs, growth factors, cytokines, and adhesion proteins. [2] ADAM23 is a transmembrane type I glycoprotein. Since its metalloprotease domain is inactive, it appears to function mainly through the disintegrin domain. ADAM23 has been shown to regulate mechanisms in epilepsy, inflammation and tumor establishment through interaction with different members of integrin receptors.[3] ADAM23 is thought to form a trans-synaptic complex with ADAM22 and LGI1. ADAM23 binds Kv1.1/Kv1.4 potassium channels, ADAM22 binds post-synaptic AMPA receptors, and LGI1 aligns these pre- and post-synaptic elements. The interaction of LGI1 and the ADAM proteins appears to regulate excitability of CNS neurons. In addition to binding to LGI1, ADAM23 also regulates the amount of LGI1 molecules at the axon initial segment, by modulating the trafficking, export and expression of LGI1.[4] In knockout studies in mice, aberrant LGI1 regulation of neuronal morphology through ADAM23 protein resulted in Autosomal dominant lateral temporal epilepsy (ADLTE). Autoantibodies directed at LGI1 have been shown to disrupt the trans-synaptic complex and are associated with autoimmune encephalitis. ADAM23-null mice had aberrant dendrite morphology and exhibited seizures. Reduced ADAM23 expression lowered seizure threshold.[5] ADAM23 has a specific interaction with $\alpha(v)\beta(3)$ integrin mediated by the disintegrin domain. ADAM23 knockdown cells showed enhanced migration and adhesion to $\alpha(v)\beta(3)$ integrin ligands. Expression of this integrin in the activated form has been shown to promote metastasis formation. This suggests a functional role of ADAM23 during metastatic progression by

Target Details

negatively modulating alpha(v)beta(3) integrin activation. It has been shown that the ADAM23 gene is frequently silenced in different types of tumors, including melanoma, glioma, prostate, ovary, and breast cancer.[6]

Gene ID: 23792

UniProt: [Q9R1V7](#)

Application Details

Application Notes: Antigen preadsorption control: 1 µg peptide per 1 µg antibody
Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:300
Application Dilutions Western blot wb: 1:200

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: 0.2 mL double distilled water (DDW).

Concentration: 1 mg/mL

Buffer: PBS pH 7.4

Storage: 4 °C,-20 °C

Storage Comment: Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C.
Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).