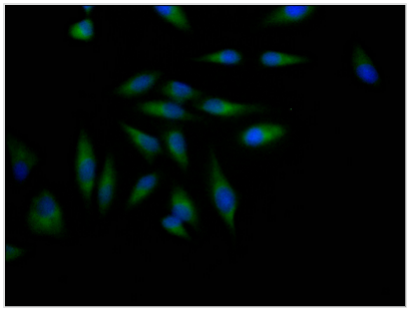
ADAM17 Recombinant Monoclonal Antibody

Product Code	CSB-RA797631A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P78536
Immunogen	A synthesized peptide derived from human ADAM17
Species Reactivity	Human
Tested Applications	ELISA, IF; Recommended dilution: IF:1:20-1:200
Relevance	Cleaves the membrane-bound precursor of TNF-alpha to its mature soluble form. Responsible for the proteolytical release of soluble JAM3 from endothelial cells surface. Responsible for the proteolytic release of several other cell-surface proteins, including p75 TNF-receptor, interleukin 1 receptor type II, p55 TNF-receptor, transforming growth factor-alpha, L-selectin, growth hormone receptor, MUC1 and the amyloid precursor protein. Acts as an activator of Notch pathway by mediating cleavage of Notch, generating the membrane-associated intermediate fragment called Notch extracellular truncation (NEXT). Plays a role in the proteolytic processing of ACE2.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience; Cancer; Cell biology; Metabolism; Signal transduction; Stem cells
Gene Names	ADAM17
Clone No.	5A1

Image



Immunofluorescence staining of Hela Cells with CSB-RA797631A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

ADAM17 antibody-producing hybridomas were formed by the fusion of myeloma cells to B lymphocytes. B cells were isolated from the animal that was immunized with a synthetic peptide derived from human ADAM17. The variable light and variable heavy domains of the hybridomas were sequenced to construct a vector for recombinant generation. The ADAM17 monoclonal antibody gene-containing vector was then transfected into cells for cultivation, and the ADAM17 recombinant monoclonal antibody was isolated and purified using affinity chromatography from the cell culture supernatant. The purified antibody's specificity was verified through ELISA and IF applications, where it only detected human ADAM17 protein.

ADAM17, also known as TACE, is involved in the proteolytic cleavage of a wide variety of cell surface proteins, including cytokines, growth factors, and adhesion molecules. ADAM17 has been implicated in various physiological and pathological processes, such as inflammation, cancer, and development. ADAM17 has also been implicated in the shedding of adhesion molecules such as E-cadherin and L-selectin, which can affect cell-cell interactions and migration. ADAM17 has also been shown to cleave the transmembrane protein Notch, which is involved in cell fate determination and differentiation.