

KD-Validated Anti-CD82 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI1541

Product Information

Application	WB, FC
Primary Accession	P27701
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB5795
Calculated MW	29626
Gene Name	CD82
Aliases	CD82; CD82 Molecule 2; TSPAN27; IA4; CD82 Antigen; KAI1; R2; Kangai 1 (Suppression Of Tumorigenicity 6, Prostate; CD82 Antigen (R2 Leukocyte Antigen, Antigen Detected By Monoclonal And Antibody IA4)); Metastasis Suppressor Kangai-1; Inducible Membrane Protein R2; Tetraspanin-27; C33 Antigen; Tspan-27; SAR2; Suppressor Of Tumorigenicity 6 Protein; Suppression Of Tumorigenicity 6; R2 Leukocyte Antigen; GR15; 4F9; C33
Immunogen	A synthesized peptide derived from human CD82

Additional Information

Gene ID	3732
Other Names	CD82 antigen, C33 antigen, IA4, Inducible membrane protein R2, Metastasis suppressor Kangai-1, Suppressor of tumorigenicity 6 protein, Tetraspanin-27, Tspan-27, CD82, CD82, KAI1, SAR2, ST6, TSPAN27

Protein Information

Name	CD82
Synonyms	KAI1, SAR2, ST6, TSPAN27
Function	Structural component of specialized membrane microdomains known as tetraspanin-enriched microdomains (TERMs), which act as platforms for receptor clustering and signaling (PubMed: 19497983). Participates thereby in diverse biological functions such as cell signal transduction, adhesion, migration and protein trafficking. Acts as a attenuator of EGF signaling, facilitating ligand-induced endocytosis of the receptor and its subsequent desensitization (PubMed: 10985391 , PubMed: 35538033). Mechanistically, modulates ligand- induced ubiquitination and trafficking of EGFR via E3 ligase CBL phosphorylation by PKC (PubMed: 23897813). Increases cell-matrix adhesion by regulating the membrane organization of integrin alpha4/ITA4 (PubMed: 24623721 , PubMed: 8757325). Modulates adhesion and suppresses cell migration through other integrins such as the alpha6/ITGA6 and

beta1/ITGB1 (PubMed:[15557282](#), PubMed:[17560548](#)). Decreases cell-associated plasminogen activation by interfering with the interaction between urokinase-type plasminogen activator/PLAU and its receptor PLAUR (PubMed:[15677461](#)). Associates with CD4 or CD8 and delivers costimulatory signals for the TCR/CD3 pathway. Plays a role in TLR9 trafficking to acidified CpG-containing compartments by controlling interaction between TLR9 and VAMP3 and subsequent myddosome assembly (By similarity). Inhibits LPS-induced inflammatory response by preventing binding of LPS to TLR4 on the cell surface (PubMed:[36945827](#)). Plays a role in the activation of macrophages into anti-inflammatory phenotypes (By similarity). Independently of Toll- like receptor (TLR) signaling, is recruited to pathogen-containing phagosomes prior to fusion with lysosomes and thereby participates in antigen presentation (By similarity). Also acts to control angiogenesis and switch angiogenic milieu to quiescent state by binding and sequestering VEGFA and PDGFB to inhibit the signaling they trigger via their respective cell surface receptor (PubMed:[34530889](#)).

Cellular Location

Cell membrane {ECO:0000269 | PubMed:19497983, ECO:0000269 | PubMed:23897813, ECO:0000269 | PubMed:30463011, ECO:0000269 | PubMed:34530889, ECO:0000269 | PubMed:8757325, ECO:0000269 | Ref.4}; Multi-pass membrane protein Cytoplasmic vesicle, phagosome {ECO:0000250 | UniProtKB:P40237}

Tissue Location

Lymphoid specific.

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