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Rabbit Anti-CD133 antibody

SL0209R

Product Name:	CD133
Chinese Name:	造血干细胞抗原 CD133 抗体
Alias:	AC133; Antigen AC133; Hematopoietic stem cell antigen; hProminin; PROM1; Prominin I; Prominin like protein 1 precursor; Prominin mouse like 1; prominin1; PROML1; CD133 antigen; CORD12; MCDR2; MSTP061; PROML1; RP41; STGD4; PROM1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, (predicted: Rat, Fruit Fly,)
Applications:	WB=1:500-2000ELISA=1:5000-10000IHC-P=1:100-500IHC-F=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
molecular weight:	95kDa
Cellular localization:	The cell membrane
Form:	Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human CD24 :35-80/80
Lsotype:	IgG
Purification:	affinity purified by Protein A
Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
attention:	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Product Detail:	This gene encodes a pentaspan transmembrane glycoprotein. The protein localizes to membrane protrusions and is often expressed on adult stem cells, where it is thought to function in maintaining stem cell properties by suppressing differentiation. Mutations in this gene have been shown to result in retinitis pigmentosa and Stargardt disease. Expression of this gene is also associated with several types of cancer. This gene is expressed from at least five alternative promoters that are expressed in a tissue-dependent manner. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq]. **Function:** Binds cholesterol in cholesterol-containing plasma membrane microdomains. Proposed to play a role in apical plasma membrane organization of epithelial cells. During early retinal development acts as a key regulator of disk morphogenesis. Involved in regulation of MAPK and Akt signaling pathways. In neuroblastoma cells suppresses cell differentiation such as neurite outgrowth in a RET-dependent manner. **Subunit:**

Interacts with CDHR1 and with actin filaments.

Subcellular Location:
Cell projection, cilium, photoreceptor outer segment. Isoform 1: Apical cell membrane; Multi-pass membrane protein. Cell projection, microvillus membrane; Multi-pass membrane protein. Note=Found in extracellular membrane particles in various body fluids such as cerebrospinal fluid, saliva, seminal fluid and urine.

Tissue Specificity:
Isoform 1 is selectively expressed on CD34 hematopoietic stem and progenitor cells in adult and fetal bone marrow, fetal liver, cord blood and adult peripheral blood. Isoform 1 is not detected on other blood cells. Isoform 1 is also expressed in a number of non-lymphoid tissues including retina, pancreas, placenta, kidney, liver, lung, brain and heart. Found in saliva within small membrane particles. Isoform 2 is predominantly expressed in fetal liver, skeletal muscle, kidney, and heart as well as adult pancreas, kidney, liver, lung, and placenta. Isoform 2 is highly expressed in fetal liver, low in bone marrow, and barely detectable in peripheral blood. Isoform 2 is expressed on hematopoietic stem cells and in epidermal basal cells (at protein level). Expressed in adult retina by rod and cone photoreceptor cells (at protein level).

Post-translational modifications:
Isoform 1 and isoform 2 are glycosylated.

DISEASE:
Defects in PROM1 are the cause of retinitis pigmentosa type 41 (RP41) [MIM:612095]; also known as retinal degeneration autosomal recessive prominin-related. RP is a retinal dystrophy belonging to the group of pigmentary retinopathies. RP is characterized by retinal pigment deposits visible on fundus examination and primary loss of rod photoreceptor cells followed by secondary loss of cone photoreceptors. Patients typically have night vision blindness and loss of midperipheral visual field. As their condition progresses, they lose their far peripheral visual field and eventually central vision as well.
Defects in PROM1 are the cause of cone-rod dystrophy type 12 (CORD12) [MIM:612657]. CORD12 is an inherited retinal dystrophy characterized by retinal pigment deposits visible on fundus examination, predominantly in the macular region, and initial loss of cone photoreceptors followed by rod degeneration. This leads to decreased visual acuity and sensitivity in the central visual field, followed by loss of peripheral vision. Severe loss of vision occurs earlier than in retinitis pigmentosa.
Defects in PROM1 are the cause of Stargardt disease type 4 (STGD4) [MIM:603786]. Stargardt disease is the most common hereditary macular degeneration. It is characterized by decreased central vision, atrophy of the macula and underlying retinal pigment epithelium, and frequent presence of prominent flecks in the posterior pole of the retina.
Defects in PROM1 are the cause of retinal macular dystrophy type 2 (MCDR2) [MIM:608051]. MCDR2 is a bull's-eye macular dystrophy characterized by bilateral annular atrophy of retinal pigment epithelium at the macula.

Similarity:
Belongs to the prominin family.

SWISS:
O43490

Gene ID:
8842

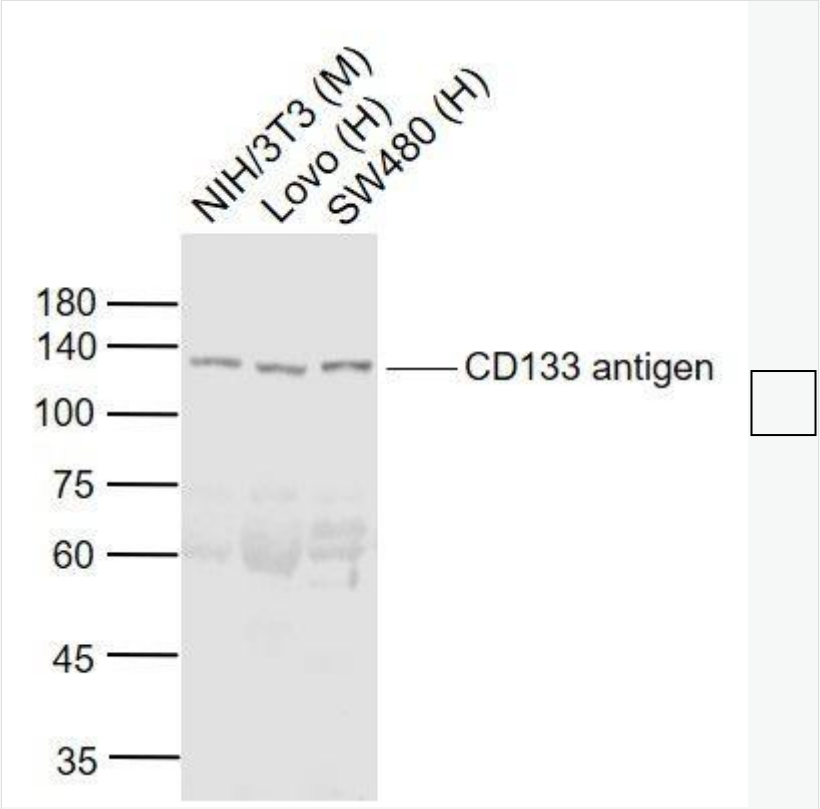
Database links:

Entrez Gene: 8842 Human

Entrez Gene: 19126 Mouse

SwissProt: O43490 Human

SwissProt: O54990 Mouse



Sample:

Lane 1: NIH/3T3 (Mouse) Cell Lysate at 30 ug

Lane 2: Lovo (Human) Cell Lysate at 30 ug

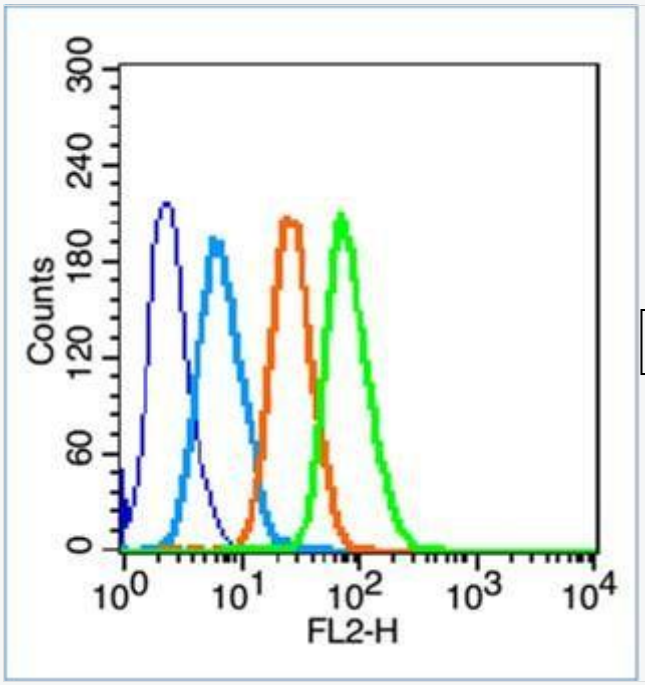
Lane 3: SW480 (Human) Cell Lysate at 30 ug

Primary: Anti-CD133 antigen (SL0209R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 110 kD

Observed band size: 120 kD



Blank control (blue line): Hep G2(fixed with 70% ethanol Overnight at 4℃. Cells stained with Primary Antibody for 30 min at room temperature).

Primary Antibody (green line): Rabbit Anti-CD133 antibody (SL0209R),Dilution: 1μg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE,Dilution: 1μg /test.