abcam

ab253264

Anti-CD167a/DDR1 antibody [51D6]

Key facts

Isotype	IgM
Host species	Mouse
Storage buffer	pH: 8 Preservative: 0.0975% Sodium azide Constituents: Tris buffered saline
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing DDR1 protein. The exact immunogen used to generate this antibody is proprietary information. Database link Q08345
Clone number	51D6
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Precipitation and chromatography. Greater than 95% pure by SDS-PAGE.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	5 µg/mL
Notes	-

Target data

See full target information DDR1

Function	Tyrosine kinase that functions as a cell surface receptor for fibrillar collagen and regulates cell attachment to the extracellular matrix, remodeling of the extracellular matrix, cell migration, differentiation, survival and cell proliferation. Collagen binding triggers a signaling pathway that involves SRC and leads to the activation of MAP kinases. Regulates remodeling of the extracellular matrix by up-regulation of the matrix metalloproteinases MMP2, MMP7 and MMP9, and thereby facilitates cell migration and wound healing. Required for normal blastocyst implantation during pregnancy, for normal mammary gland differentiation and normal lactation. Required for normal ear morphology and normal hearing (By similarity). Promotes smooth muscle cell migration, and thereby contributes to arterial wound healing. Also plays a role in tumor cell invasion. Phosphorylates PTPN11.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CD167a also known as DDR1 (Discoidin Domain Receptor 1) is a receptor tyrosine kinase with a molecular mass of approximately 101 kDa. This protein is expressed widely in various tissues including the thyroid lung kidney and mammary gland. It becomes activated upon collagen binding leading to the regulation of cell adhesion proliferation and extracellular matrix remodeling. The DDR1 protein plays a mechanistic role in responding to unique collagen-rich environments within the body.

Biological function summary	CD167a/DDR1 modulates interactions between cells and their surrounding matrix. It is involved in a complex with collagen mediating signal transduction processes. This interaction is important for cellular biophysical responses driving processes like cell migration and differentiation. In marmoset thyroid tissue DDR1 helps maintain structural integrity and regulates cellular activities important for normal thyroid function.
Pathways	CD167a/DDR1 participates in key signaling pathways including those related to cell adhesion and extracellular matrix remodeling. Specifically it operates within the MAPK/ERK pathway influencing cell cycle dynamics and responses to stress signals. DDR1 also interacts with proteins like SHC and Ras enabling communication between the cell surface and intracellular targets necessary for growth and adaptation.
Associated diseases and disorders	Mutations or irregular expression of CD167a/DDR1 have implications in cancer and fibrotic diseases. Overexpression or aberration of DDR1 can contribute to tumorigenesis facilitating tumor cell invasion and metastasis. In fibrotic conditions altered DDR1 activity can disrupt normal matrix remodeling linking it to proteins such as collagen I and III which play major roles in these disorders. Understanding DDR1's role offers potential for therapeutic interventions in targeting related pathological conditions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

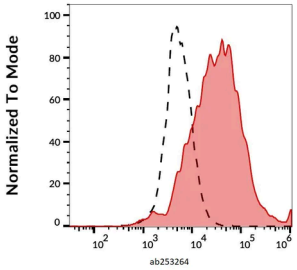
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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1 product image



Flow Cytometry - Anti-CD167a/DDR1 antibody [51D6] (ab253264)

CD167a/DDR1 Flow Cytometry staining using mouse Anti-CD167a/DDR1 antibody

Flow Cytometry analysis of MCF7 (human breast adenocarcinoma cell line) cells labeling CD167a/DDR1 with ab253264 at 5 µg/mL. Surface staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.