

**ARG42335**  
**anti-DDR1 antibody [51D6] (PE)**

Package: 50 tests

Store at: 4°C

### Summary

Product Description	PE-conjugated Mouse Monoclonal antibody [51D6] recognizes DDR1
Tested Reactivity	Hu
Tested Application	FACS
Specificity	The mouse monoclonal antibody 51D6 recognizes an extracellular epitope of CD167a, an approximately 97-101 kDa receptor tyrosine kinase expressed mainly on epithelial cells, but also on B cells and dendritic cells.
Host	Mouse
Clonality	Monoclonal
Clone	51D6
Isotype	IgM
Target Name	DDR1
Species	Human
Immunogen	CD167a-transfected NIH/3T3 cells.
Conjugation	PE
Alternate Names	PTK3; Discoidin receptor tyrosine kinase; PTK3A; CAK; Tyrosine-protein kinase CAK; NEP; NTRK4; Epithelial discoidin domain-containing receptor 1; HGK2; Protein-tyrosine kinase RTK-6; TRKE; EDDR1; DDR; Tyrosine kinase DDR; CD167 antigen-like family member A; MCK-10; CD antigen CD167a; Protein-tyrosine kinase 3A; TRK E; CD167; Cell adhesion kinase; RTK6; Epithelial discoidin domain receptor 1; MCK10; EC 2.7.10.1; Mammary carcinoma kinase 10

### Application Instructions

Application table	<table><thead><tr><th>Application</th><th>Dilution</th></tr></thead><tbody><tr><td>FACS</td><td>10 µl / 100 µl of whole blood or 10<sup>6</sup> cells</td></tr></tbody></table>	Application	Dilution	FACS	10 µl / 100 µl of whole blood or 10 <sup>6</sup> cells
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FACS	10 µl / 100 µl of whole blood or 10 <sup>6</sup> cells				
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.				

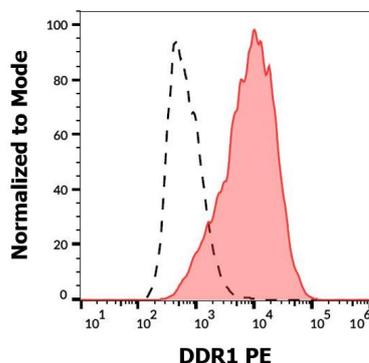
### Properties

Form	Liquid
Purification	Purified
Buffer	TBS and 15 mM Sodium azide.
Preservative	15 mM Sodium azide
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

## Bioinformation

Gene Symbol	DDR1
Gene Full Name	discoidin domain receptor tyrosine kinase 1
Background	Receptor tyrosine kinases play a key role in the communication of cells with their microenvironment. These kinases are involved in the regulation of cell growth, differentiation and metabolism. The protein encoded by this gene belongs to a subfamily of tyrosine kinase receptors with homology to Dictyostelium discoideum protein discoidin I in their extracellular domain, and that are activated by various types of collagen. Expression of this protein is restricted to epithelial cells, particularly in the kidney, lung, gastrointestinal tract, and brain. In addition, it has been shown to be significantly overexpressed in several human tumors. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Feb 2011]
Function	Tyrosine kinase that functions as 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. [UniProt]
Calculated Mw	101 kDa
PTM	Autophosphorylated in response to fibrillar collagen binding.  Glycosylation of Asn-211, but apparently not of Asn-260, Asn-371, or Asn-394, prevents autophosphorylation from occurring in the absence of collagen. [UniProt]
Cellular Localization	Isoform 1: Cell membrane; Single-pass type I membrane protein. Isoform 2: Cell membrane; Single-pass type I membrane protein. Isoform 3: Secreted. Isoform 4: Cell membrane; Single-pass type I membrane protein. [UniProt]

## Images



ARG42335 anti-DDR1 antibody [51D6] (PE) FACS image

Flow Cytometry: MCF7 cells stained with ARG42335 anti-DDR1 antibody [51D6] (PE) (red) in comparison with FMO (fluorescence minus one) sample (black-dashed).