BACKGROUND
The majority of the large number of receptor tyrosine kinases that have been identified can be categorized into distinct families based on the structure of their extracellular domains. Only a limited number of ligands for the receptors have been described, and while the majority of the ligands identified are soluble factors, an increasing number of receptors have been shown to bind to cell-surface molecules. Discoidin domain receptor 1 (DDR1), previously identified as Cak, for cell adhesion kinase, and also designated MCK-10, EDDR1, NEP, Ptk-3, NTRK4, RTK6 or trk E, and discoidin domain receptor 2 (DDR2) comprise a new family of receptor tyrosine kinases involved in cell-cell interactions. Both DDR1 and DDR2 have been shown to be activated by collagen. Evidence suggests that a docking site for the Shc phosphotyrosine binding domain is phosphorylated in response to activation of DDR1 by collagen, whereas collagen activation of DDR2 results in upregulation of matrix metalloproteinase-1 expression.

CHROMOSOMAL LOCATION
Genetic locus: DDR1 (human) mapping to 6p21.33.

SOURCE
DDR1 (48B3) is a mouse monoclonal antibody raised against DDR1 of human origin.

PRODUCT
Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin. DDR1 (48B3) is available conjugated to agarose (sc-21790 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to either phycoerythrin (sc-21790 PE) or fluorescein (sc-21790 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

STORAGE
Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE
For research use only, not for use in diagnostic procedures.

APPLICATIONS
DDR1 (48B3) is recommended for detection of DDR1 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for DDR1 siRNA (h): sc-35187, DDR1 shRNA Plasmid (h): sc-35187-SH and DDR1 shRNA (h) Lentiviral Particles: sc-35187-V.

Molecular Weight of DDR1: 125 kDa.
Positive Controls: A-431 whole cell lysate: sc-2201, SK-BR-3 cell lysate: sc-2218 or ZR-75-1 cell lysate: sc-2241.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended:

DATA

SELECT PRODUCT CITATIONS

PROTOCOLS
See our web site at www.scbt.com for detailed protocols and support products.

See DDR1 (C-6): sc-374618 for DDR1 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.