**SGR2 (3B11E4): sc-81707**

**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, EDOR1, 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: DDR2 (human) mapping to 1q23.3; Ddr2 (mouse) mapping to 1 H3.

**SOURCE**

DDR2 (3B11E4) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 422-639 of DDR2 of human origin.

**PRODUCT**

Each vial contains 200 μg IgGk kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DDR2 (3B11E4) is available conjugated to agarose (sc-81707 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-81707 HRP), 200 μg/ml, for WB, (HCIP) and ELISA; to either phycerythrin (sc-81707 PE), fluorescein (sc-81707 FITC), Alexa Fluor® 488 (sc-81707 AF488), Alexa Fluor® 546 (sc-81707 AF546), Alexa Fluor® 594 (sc-81707 AF594) or Alexa Fluor® 647 (sc-81707 AF647), 200 μg/ml, for WB (RGB), IF, IHCIP and FCM; and to either Alexa Fluor® 680 (sc-81707 AF680) or Alexa Fluor® 790 (sc-81707 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**RESEARCH USE**

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

**APPLICATIONS**

DDR2 (3B11E4) is recommended for detection of DDR2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for DDR2 siRNA (h): sc-39922, DDR2 siRNA (m): sc-39923, DDR2 shRNA Plasmid (h): sc-39922-SH, DDR2 shRNA Plasmid (m): sc-39923-SH, DDR2 shRNA (h) Lentiviral Particles: sc-39922-V and DDR2 shRNA (m) Lentiviral Particles: sc-39923-V.

Molecular Weight of DDR2: 116 kDa.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGk BP-HRP: sc-516102 or m-IgGk BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGk BP-FITC: sc-516140 or m-IgGk BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-358250. 3) Immunohistochemistry: use m-IgGk BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohis-tomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**


DDR2 (3B11E4): sc-81707. Immunoperoxidase staining of formalin fixed, paraffin-embedded human vulva/an skin tissue showing cytoplasmic staining of epidermal cells.

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

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