

CKR-2B (A-11): sc-74490

BACKGROUND

C-C or β -chemokine family members are characterized by a pair of adjacent cysteine residues and serve as potent chemoattractants and activators of monocytes and T cells. C-C chemokine receptor family members include CKR-1, CKR-2A, CKR-2B, CKR-3, CKR-4, CKR-5, CKR-6, CKR-7, CKR-8, CKR-9, CKR-10 and the Duffy blood group antigen. Each of these receptors are G protein-coupled, seven pass transmembrane domain proteins whose major physiological role is to function in the chemotaxis of T cells and phagocytic cells to areas of inflammation. However, this receptor family has also been shown to facilitate viral infection. CKR-2 (C-C chemokine receptor type 2) is a 374 amino acid multi-pass membrane protein that belongs to the C-C chemokine receptor family and is expressed as two isoforms, designated CKR-2A and CKR-2B. Both CKR-2 isoforms function as receptors for a variety of proteins, including MCP-1 and MCP-3, thereby influencing intracellular calcium levels and affecting signal transduction throughout the cell.

CHROMOSOMAL LOCATION

Genetic locus: CCR2 (human) mapping to 3p21.31.

SOURCE

CKR-2B (A-11) is a mouse monoclonal antibody raised against amino acids 1-40 mapping at the N-terminus of CKR-2B of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CKR-2B (A-11) is available conjugated to agarose (sc-74490 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74490 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74490 PE), fluorescein (sc-74490 FITC), Alexa Fluor[®] 488 (sc-74490 AF488), Alexa Fluor[®] 546 (sc-74490 AF546), Alexa Fluor[®] 594 (sc-74490 AF594) or Alexa Fluor[®] 647 (sc-74490 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-74490 AF680) or Alexa Fluor[®] 790 (sc-74490 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

CKR-2B (A-11) is recommended for detection of CKR-2B of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CKR-2 siRNA (h): sc-270220, CKR-2 shRNA Plasmid (h): sc-270220-SH and CKR-2 shRNA (h) Lentiviral Particles: sc-270220-V.

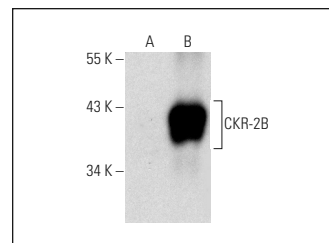
Molecular Weight of CKR-2B: 41 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or human CKR-2B transfected HEK293T whole cell lysate.

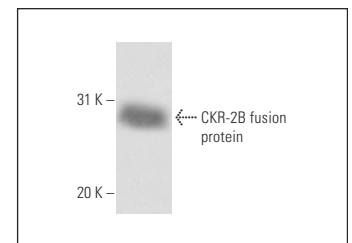
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



CKR-2B (A-11): sc-74490. Western blot analysis of CKR-2B expression in non-transfected (A) and human CKR-2B transfected (B) HEK293T whole cell lysates.



CKR-2B (A-11): sc-74490. Western blot analysis of human recombinant CKR-2B fusion protein.

SELECT PRODUCT CITATIONS

- Kholodnyuk, I., et al. 2017. Expression of the chemokine receptors CCR1 and CCR2B is up-regulated in peripheral blood B cells upon EBV infection and in established lymphoblastoid cell lines. *Virology* 512: 1-7.
- Gillman, A.N., et al. 2017. Epidermal growth factor receptor signaling enhances the proinflammatory effects of *Staphylococcus aureus* γ -toxin on the mucosa. *Toxins* 9: 202.
- Kozireva, S., et al. 2018. Upregulation of the chemokine receptor CCR2B in Epstein-Barr virus-positive Burkitt lymphoma cell lines with the latency III program. *Viruses* 10: 239.
- Huang, Y., et al. 2018. Targeted homing of CCR2-overexpressing mesenchymal stromal cells to ischemic brain enhances post-stroke recovery partially through PRDX4-mediated blood-brain barrier preservation. *Theranostics* 8: 5929-5944.

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.

PROTOCOLS

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