

# IP-10 (E-2): sc-374092

## BACKGROUND

Chemokines are members of a superfamily of inducible, secreted, pro-inflammatory cytokines. Members of the chemokine family exhibit 20% to 50% homology in their predicted amino acid sequences and are divided into four subfamilies: C-C, C-X-C, C and C-X3-C. In the C-X-C or  $\alpha$  subfamily, the first two of four cysteine motifs are separated by another amino acid residue. In the second subfamily, designated C-C or  $\beta$ , the first cysteines are adjacent. C subfamily members, also designated  $\gamma$  chemokines, lack the first and third cysteine residues of the conserved motif. In the C-X3-C, or  $\delta$  subfamily, members have three amino acids between the two cysteines. The C-X-C chemokine subfamily includes IL-8, GRO $\alpha$ / $\beta$ / $\gamma$  (and the murine homologs KC, MIP-2 $\alpha$  and MIP-2 $\beta$ ), platelet basic protein, ENA-78, GCP-2, PF4, IP-10 (and its murine homolog, CRG) and MIG.

## CHROMOSOMAL LOCATION

Genetic locus: Cxcl10 (mouse) mapping to 5 E2.

## SOURCE

IP-10 (E-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 24-55 within an internal region of IP-10 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IP-10 (E-2) is available conjugated to agarose (sc-374092 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374092 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374092 PE), fluorescein (sc-374092 FITC), Alexa Fluor<sup>®</sup> 488 (sc-374092 AF488), Alexa Fluor<sup>®</sup> 546 (sc-374092 AF546), Alexa Fluor<sup>®</sup> 594 (sc-374092 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-374092 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-374092 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-374092 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374092 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

IP-10 (E-2) is recommended for detection of IP-10 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 IP-10 siRNA (m): sc-108021, IP-10 shRNA Plasmid (m): sc-108021-SH and IP-10 shRNA (m) Lentiviral Particles: sc-108021-V.

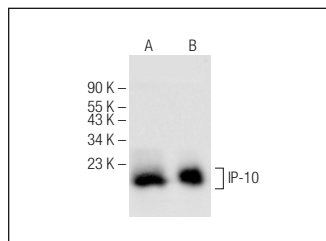
Molecular Weight of IP-10: 10 kDa.

Positive Controls: mouse spleen extract: sc-2391 or mouse liver extract: sc-2256.

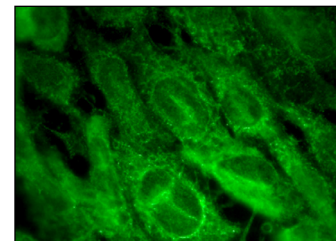
## STORAGE

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

## DATA



IP-10 (E-2): sc-374092. Western blot analysis of IP-10 expression in mouse spleen (A) and mouse liver (B) tissue extracts.



IP-10 (E-2): sc-374092. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing membrane localization.

## SELECT PRODUCT CITATIONS

1. Clarner, T., et al. 2015. CXCL10 triggers early microglial activation in the cuprizone model. *J. Immunol.* 194: 3400-3413.
2. Sen, T., et al. 2020. Aberrant ER-stress induced neuronal-IFN $\beta$  elicits white matter injury due to microglial activation and T-cell infiltration after TBI. *J. Neurosci.* 40: 424-446.
3. Zhang, L., et al. 2020. Relative abundance of interferon-stimulated genes Stat1, OAS1, CXCL10 and MX1 in ovine lymph nodes during early pregnancy. *Anim. Reprod. Sci.* 214: 106285.
4. Chen, Y., et al. 2021. Serum extracellular vesicles containing MIAT induces atrial fibrosis, inflammation and oxidative stress to promote atrial remodeling and atrial fibrillation via blockade of miR-485-5p-mediated CXCL10 inhibition. *Clin. Transl. Med.* 11: e482.
5. Lasagni Vitar, R.M., et al. 2021. Topical neurokinin-1 receptor antagonist Fosaprepitant ameliorates ocular graft-versus-host disease in a preclinical mouse model. *Exp. Eye Res.* 212: 108825.
6. Reinehr, S., et al. 2021. Cytokine and complement response in the glaucomatous  $\beta$ B1-CTGF mouse model. *Front. Cell. Neurosci.* 15: 718087.
7. Fu, B., et al. 2021. MiR-342 controls *Mycobacterium tuberculosis* susceptibility by modulating inflammation and cell death. *EMBO Rep.* 22: e52252.
8. Han, X., et al. 2022. Selection of early pregnancy specific proteins and development a rapid immunochromatographic test strip in cows. *Theriogenology* 187: 127-134.
9. Chen, H., et al. 2022. Deciphering the tumor microenvironment cell-infiltrating landscape reveals microenvironment subtypes and therapeutic potentials for nonsquamous NSCLC. *JCI Insight* 7: e152815.

## RESEARCH USE

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

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