

GCP-2 (h): 293T Lysate: sc-113480

BACKGROUND

Human granulocyte chemotactic protein 2 (GCP-2) is a member of the ELR-expressing CXC subfamily of chemokines (ELR⁺-CXC) and acts as a potent chemoattractant of neutrophils in the course of acute inflammation. GCP-2 is highly produced by MG-63 osteosarcoma cells and induces neovascularization, suggesting that it may be involved in tumor development and metastasis formation. ELR⁺-CXC chemokines and their receptors provide multiple levels of regulation for chemokine-specific control of inflammatory processes. GCP-2 is the only ELR⁺-CXC chemokine, except for IL-8, that is an effective ligand for CXCR-1 and CXCR-2. CXCR-1 and CXCR-2 belong to a superfamily of G protein-coupled receptors (GPCR) whose signaling is mediated by their coupling to heterotrimeric G proteins, resulting in the exchange of GDP for GTP on the subunit of the G protein.

REFERENCES

1. Savarese, T.M. and Fraser, C.M. 1992. *In vitro* mutagenesis and the search for structure-function relationship among G protein-coupled receptors. *Biochem. J.* 283: 1-19.
2. Probst, W.C., Snyder, L.A., Schuster, D.I., Brosius, J. and Sealfon, S.C. 1992. Sequence alignment of the G protein-coupled receptor superfamily. *DNA Cell Biol.* 11: 1-20.
3. Ben-Baruch, A., Michiel, D.F. and Oppenheim, J.J. 1995. Signals and receptors involved in recruitment of inflammatory cells. *J. Biol. Chem.* 270: 703-706.
4. Van Damme, J., Wuyts, A., Froyen, G., Van Coillie, E., Struyf, S., Billiau, A., Proost, P., Wang, J.M. and Opdenakker, G. 1997. Granulocyte chemotactic protein 2 and related CXC chemokines: from gene regulation to receptor usage. *J. Leukoc. Biol.* 62: 563-569.
5. Wuyts, A., Van Osselaer, N., Haelens, A., Samson, I., Herdewijn, P., Ben-Baruch, A., Oppenheim, J.J., Proost, P. and Van Damme, J. 1997. Characterization of synthetic human granulocyte chemotactic protein 2: usage of chemokine receptors CXCR-1 and CXCR-2 and *in vivo* inflammatory properties. *Biochemistry* 36: 2716-2723.
6. Wess, J. 1997. G protein-coupled receptors: molecular mechanisms involved in receptor activation and selectivity of G protein recognition. *FASEB J.* 11: 346-354.
7. Feniger-Barish, R., Belkin, D., Zaslaver, A., Gal, S., Dori, M., Ran, M. and Ben-Baruch, A. 2000. GCP-2-induced internalization of IL-8 receptors: hierarchical relationships between GCP-2 and other ELR⁺-CXC chemokines and mechanisms regulating CXCR-2 internalization and recycling. *Blood* 95: 1551-1559.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: CXCL6 (human) mapping to 4q13.3.

PRODUCT

GCP-2 (h): 293T Lysate represents a lysate of human GCP-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

GCP-2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive GCP-2 antibodies. Recommended use: 10-20 µl per lane.

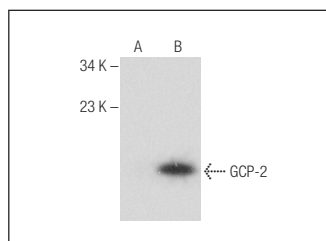
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GCP-2 (D-6): sc-377026 is recommended as a positive control antibody for Western Blot analysis of enhanced human GCP-2 expression in GCP-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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.

DATA



ENA-78 (D-6): sc-377026. Western blot analysis of GCP-2 expression in non-transfected: sc-117752 (A) and human GCP-2 transfected: sc-113480 (B) 293T whole cell lysates.

RESEARCH USE

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