

# CRLF3 (D-10): sc-398388

## BACKGROUND

CRLF3 (cytokine receptor-like factor 3), also known as type I cytokine receptor like factor, FRWS, CREME9 (cytokine receptor-like molecule 9), CYTOR4 (cytokine receptor-related protein 4) or P48 (type I cytokine receptor-like factor p48), is a 442 amino acid protein that contains one Fibronectin type-III domain. CRLF3 is expressed in lesion actinic keratosis (AK) and skin and squamous cell carcinoma (SCC), and is thought to negatively regulate the G<sub>0</sub>/G<sub>1</sub> phase of the cell cycle. The gene encoding CRLF3 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair and is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

## REFERENCES

- Hall, J.M., et al. 1992. Closing in on a breast cancer gene on chromosome 17q. *Am. J. Hum. Genet.* 50: 1235-1242.
- Evans, S.C. and Lozano, G. 1997. The Li-Fraumeni syndrome: an inherited susceptibility to cancer. *Mol. Med. Today* 3: 390-395.
- Varley, J.M., et al. 1997. A detailed study of loss of heterozygosity on chromosome 17 in tumours from Li-Fraumeni patients carrying a mutation to the TP53 gene. *Oncogene* 14: 865-871.

## CHROMOSOMAL LOCATION

Genetic locus: CRLF3 (human) mapping to 17q11.2; Crlf3 (mouse) mapping to 11 B5.

## SOURCE

CRLF3 (D-10) is a mouse monoclonal antibody raised against amino acids 3-242 mapping near the N-terminus of CRLF3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CRLF3 (D-10) is available conjugated to agarose (sc-398388 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398388 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398388 PE), fluorescein (sc-398388 FITC), Alexa Fluor® 488 (sc-398388 AF488), Alexa Fluor® 546 (sc-398388 AF546), Alexa Fluor® 594 (sc-398388 AF594) or Alexa Fluor® 647 (sc-398388 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398388 AF680) or Alexa Fluor® 790 (sc-398388 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

CRLF3 (D-10) is recommended for detection of CRLF3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 CRLF3 siRNA (h): sc-94066, CRLF3 siRNA (m): sc-142577, CRLF3 shRNA Plasmid (h): sc-94066-SH, CRLF3 shRNA Plasmid (m): sc-142577-SH, CRLF3 shRNA (h) Lentiviral Particles: sc-94066-V and CRLF3 shRNA (m) Lentiviral Particles: sc-142577-V.

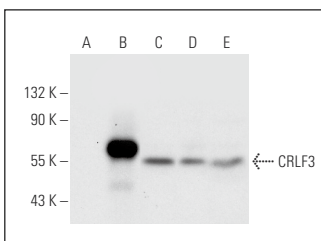
Molecular Weight of CRLF3: 50 kDa.

Positive Controls: CRLF3 (h2): 293T Lysate: sc-370881, HeLa whole cell lysate: sc-2200 or U-251-MG whole cell lysate: sc-364176.

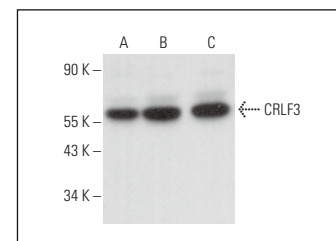
## RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



CRLF3 (D-10): sc-398388. Western blot analysis of CRLF3 expression in non-transfected 293T: sc-117752 (A), human CRLF3 transfected 293T: sc-370881 (B), NCI-H460 (C), HeLa (D) and U-251-MG (E) whole cell lysates.



CRLF3 (D-10): sc-398388. Western blot analysis of CRLF3 expression in NAMALWA (A), Raji (B) and BJAB (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Delgadillo, D.M., et al. 2022. Differential expression of proteins in an atypical presentation of autoimmune lymphoproliferative syndrome. *Int. J. Mol. Sci.* 23: 5366.
- Knorr, D.Y., et al. 2023. The cytokine receptor CRLF3 is a human neuro-protective EV-3 (Epo) receptor. *Front. Mol. Neurosci.* 16: 1154509.

## RESEARCH USE

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