

# SH3BGRL (E-5): sc-377108

## BACKGROUND

SH3BGRL (SH3 domain binding glutamic acid-rich protein like), also known as SH3BGR, is a 114 amino acid protein that is ubiquitously expressed and is encoded by a gene which maps to the X chromosome of both human and mouse. Chromosome X, one of the two human sex chromosomes, contains nearly 153 million base pairs and encodes over 1,000 genes. In conjunction with chromosome Y, chromosome X is responsible for sex determination, as an X and a Y chromosome lead to normal male development, while two copies of an X chromosome lead to normal female development. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

## REFERENCES

- Givens, J.R., et al. 1975. Features of Turner's syndrome in women with polycystic ovaries. *Obstet. Gynecol.* 45: 619-624.
- Egeo, A., et al. 1998. Identification and characterization of a new human gene encoding a small protein with high homology to the proline-rich region of the SH3BGR gene. *Biochem. Biophys. Res. Commun.* 247: 302-306.
- Patzak, D., et al. 1999. Identification, mapping, and genomic structure of a novel X-chromosomal human gene (SMPX) encoding a small muscular protein. *Hum. Genet.* 105: 506-512.
- Kemp, T.J., et al. 2001. Identification of a novel stretch-responsive skeletal muscle gene (Smpx). *Genomics* 72: 260-271.
- Bernardino-Sgherri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. *Cytogenet. Genome Res.* 99: 85-91.
- Muntoni, F., et al. 2003. Dystrophin and mutations: one gene, several proteins, multiple phenotypes. *Lancet Neurol.* 2: 731-740.

## CHROMOSOMAL LOCATION

Genetic locus: SH3BGRL (human) mapping to Xq21.1; Sh3bgrl (mouse) mapping to X D.

## SOURCE

SH3BGRL (E-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 41-75 within an internal region of SH3BGRL of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>3</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-377108 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

SH3BGRL (E-5) is recommended for detection of SH3BGRL 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).

SH3BGRL (E-5) is also recommended for detection of SH3BGRL in additional species, including equine and bovine.

Suitable for use as control antibody for SH3BGRL siRNA (h): sc-91244, SH3BGRL siRNA (m): sc-153433, SH3BGRL shRNA Plasmid (h): sc-91244-SH, SH3BGRL shRNA Plasmid (m): sc-153433-SH, SH3BGRL shRNA (h) Lentiviral Particles: sc-91244-V and SH3BGRL shRNA (m) Lentiviral Particles: sc-153433-V.

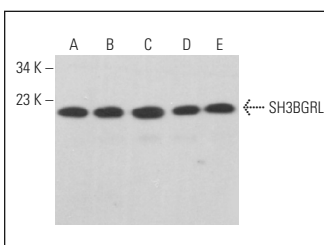
Molecular Weight of SH3BGRL: 13 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or 3T3-L1 cell lysate: sc-2243.

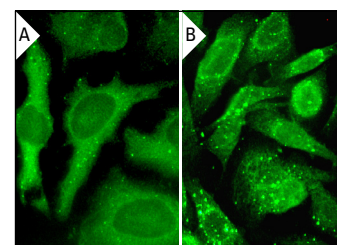
## RECOMMENDED SUPPORT REAGENTS

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



SH3BGRL (E-5): sc-377108. Western blot analysis of SH3BGRL expression in HeLa (A), MCF7 (B), Jurkat (C), 3T3-L1 (D) and C6 (E) whole cell lysates.



SH3BGRL (E-5): sc-377108. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic, nuclear and vesicles localization (B).

## SELECT PRODUCT CITATIONS

- Xu, L., et al. 2018. SH3BGRL as a novel prognostic biomarker is down-regulated in acute myeloid leukemia. *Leuk. Lymphoma* 59: 918-930.

## RESEARCH USE

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