SANTA CRUZ BIOTECHNOLOGY, INC.

SPACR (G-11): sc-377366

BACKGROUND

SPACR (sialoprotein associated with cones and rods), also known as IMPG1 (interphotoreceptor matrix proteoglycan 1) or IPM150 (interphotoreceptor matrix proteoglycan of 150 kDa), is a 797 amino acid secreted protein that contains two SEA domains. Possibly interacting with hyaluronan, SPACR may help to form a basic macromolecular scaffold comprising the insoluble interphotoreceptor matrix. SPACR is abundantly expressed in retina, where it is specifically expressed by cone and rod photoreceptor cells. The gene that encodes SPACR consists of approximately 151,564 bases and maps to human chromosome 6q14.1. With 170 million base pairs, chromosome 6 comprises nearly 6% of the human genome. Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

CHROMOSOMAL LOCATION

Genetic locus: IMPG1 (human) mapping to 6q14.1; Impg1 (mouse) mapping to 9 E1.

SOURCE

SPACR (G-11) is a mouse monoclonal antibody raised against amino acids 121-420 mapping within an internal region of SPACR of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SPACR (G-11) is available conjugated to agarose (sc-377366 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-377366 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377366 PE), fluorescein (sc-377366 FITC), Alexa Fluor® 488 (sc-377366 AF488), Alexa Fluor® 546 (sc-377366 AF546), Alexa Fluor® 594 (sc-377366 AF594) or Alexa Fluor® 647 (sc-377366 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377366 AF680) or Alexa Fluor® 790 (sc-377366 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

SPACR (G-11) is recommended for detection of SPACR 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 SPACR siRNA (h): sc-95466, SPACR siRNA (m): sc-153699, SPACR shRNA Plasmid (h): sc-95466-SH, SPACR shRNA Plasmid (m): sc-153699-SH, SPACR shRNA (h) Lentiviral Particles: sc-95466-V and SPACR shRNA (m) Lentiviral Particles: sc-153699-V.

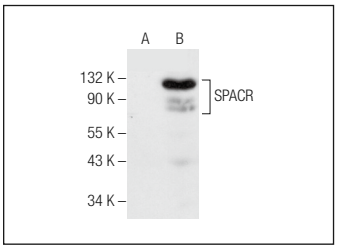
Molecular Weight of SPACR: 150 kDa.

Positive Controls: SPACR (h): 293T Lysate: sc-372566.

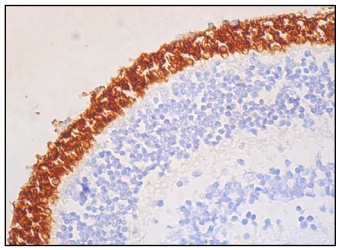
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



SPACR (G-11): sc-377366. Western blot analysis of SPACR expression in non-transfected: sc-117752 (**A**) and human SPACR transfected: sc-372566 (**B**) 293T whole cell lysates.



SPACR (G-11): sc-377366. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fetal eye tissue showing cytoplasmic staining of photoreceptor cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detected with m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216.

SELECT PRODUCT CITATIONS

1. Salido, E.M., et al. 2020. Proteoglycan IMPG2 shapes the interphotoreceptor matrix and modulates vision. J. Neurosci. 40: 4059-4072.
2. Olivier, G., et al. 2022. SPACR encoded by IMPG1 is essential for photoreceptor survival by interplaying between the interphotoreceptor matrix and the retinal pigment epithelium. Genes 13: 1508.

STORAGE

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

PROTOCOLS

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