

# HIGD2A (A-6): sc-390505

## BACKGROUND

HIGD2A (HIG1 domain family member 2A) is a 106 amino acid multi-pass membrane protein that contains one HIG1 domain. The gene encoding HIGD2A maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Chromosome 5 is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5-associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

## REFERENCES

1. Edwards, S.J., et al. 1997. The mutational spectrum in Treacher Collins syndrome reveals a predominance of mutations that create a premature-termination codon. *Am. J. Hum. Genet.* 60: 515-524.
2. McDaniel, L.D., et al. 1997. Confirmation of homozygosity for a single nucleotide substitution mutation in a Cockayne syndrome patient using monoallelic mutation analysis in somatic cell hybrids. *Hum. Mutat.* 10: 317-321.
3. Crawford, M.J., et al. 1997. Human and murine PTX1/Ptx1 gene maps to the region for Treacher Collins syndrome. *Mamm. Genome* 8: 841-845.
4. Finch, R., et al. 2005. Familial adenomatous polyposis and mental retardation caused by a *de novo* chromosomal deletion at 5q15-q22: report of a case. *Dis. Colon Rectum* 48: 2148-2152.

## CHROMOSOMAL LOCATION

Genetic locus: HIGD2A (human) mapping to 5q35.2; Higd2a (mouse) mapping to 13 B1.

## SOURCE

HIGD2A (A-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 13-47 within an N-terminal cytoplasmic domain of HIGD2A of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HIGD2A (A-6) is available conjugated to agarose (sc-390505 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390505 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390505 PE), fluorescein (sc-390505 FITC), Alexa Fluor<sup>®</sup> 488 (sc-390505 AF488), Alexa Fluor<sup>®</sup> 546 (sc-390505 AF546), Alexa Fluor<sup>®</sup> 594 (sc-390505 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-390505 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-390505 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-390505 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390505 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

HIGD2A (A-6) is recommended for detection of HIGD2A 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), immunohistochemistry (including paraffin-embedded sections) (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 HIGD2A siRNA (h): sc-91606, HIGD2A siRNA (m): sc-145964, HIGD2A shRNA Plasmid (h): sc-91606-SH, HIGD2A shRNA Plasmid (m): sc-145964-SH, HIGD2A shRNA (h) Lentiviral Particles: sc-91606-V and HIGD2A shRNA (m) Lentiviral Particles: sc-145964-V.

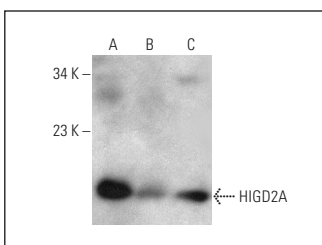
Molecular Weight of HIGD2A: 12 kDa.

Positive Controls: human heart extract: sc-363763, human colon extract: sc-363757 or HEK293 whole cell lysate: sc-45136.

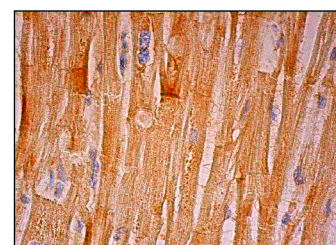
## RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> 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



HIGD2A (A-6): sc-390505. Western blot analysis of HIGD2A expression in human heart (A) and human colon (B) tissue extracts and HEK293 whole cell lysate (C).



HIGD2A (A-6): sc-390505. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

## STORAGE

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

## RESEARCH USE

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

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