

# Dopey-1 (H-300): sc-98750

## BACKGROUND

Dopey-1 is a 2,465 amino acid protein that is thought to be involved in protein trafficking between the late Golgi and early endosomes and may be involved in neurological alternations and mental retardation associated with Down syndrome. The gene encoding Dopey-1 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, *Porphyria cutanea tarda*, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

## REFERENCES

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2. Vuoristo, M.M., et al. 2004. A stop codon mutation in COL11A2 induces exon skipping and leads to non-ocular Stickler syndrome. *Am. J. Med. Genet. A* 130A: 160-164.
3. McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
4. Rachidi, M., et al. 2005. C21orf5, a new member of Dopey family involved in morphogenesis, could participate in neurological alterations and mental retardation in Down syndrome. *DNA Res.* 12: 203-210.
5. Gillingham, A.K., et al. 2006. MON2, a relative of large ARF exchange factors, recruits Dop1 to the Golgi apparatus. *J. Biol. Chem.* 281: 2273-2280.
6. Safadi, S.S., et al. 2007. A disease state mutation unfolds the Parkin ubiquitin-like domain. *Biochemistry* 46: 14162-14169.
7. Bläker, H., et al. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. *Genes Chromosomes Cancer* 47: 159-164.

## CHROMOSOMAL LOCATION

Genetic locus: DOPEY1 (human) mapping to 6q14.1; Dopey1 (mouse) mapping to 9 E3.1.

## SOURCE

Dopey-1 (H-300) is a rabbit polyclonal antibody raised against amino acids 371-670 mapping within an internal region of Dopey-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

Dopey-1 (H-300) is recommended for detection of Dopey-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Dopey-1 (H-300) is also recommended for detection of Dopey-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Dopey-1 siRNA (h): sc-77172, Dopey-1 siRNA (m): sc-77173, Dopey-1 shRNA Plasmid (h): sc-77172-SH, Dopey-1 shRNA Plasmid (m): sc-77173-SH, Dopey-1 shRNA (h) Lentiviral Particles: sc-77172-V and Dopey-1 shRNA (m) Lentiviral Particles: sc-77173-V.

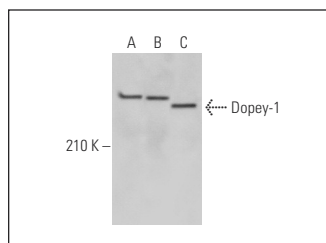
Molecular Weight of Dopey-1: 277 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Neuro-2A whole cell lysate: sc-364185.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Dopey-1 (H-300): sc-98750. Western blot analysis of Dopey-1 expression in HeLa (A), Jurkat (B) and Neuro-2A (C) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.