

# Opalin (FL-143): sc-135362

## BACKGROUND

Opalin, also known as HTMP10, oligodendrocytic myelin paranodal and inner loop protein or TMEM10 (transmembrane protein 10), is a 141 amino acid single-pass type I membrane protein that is expressed specifically in oligodendrocytes of brain. The gene encoding Opalin maps to human chromosome 10q24.1. Spanning nearly 135 million base pairs, chromosome 10 makes up approximately 4.5% of total DNA in cells and encodes nearly 1,200 genes. Several protein-coding genes, including those that encode for chemokines, cadherins, excision repair proteins, early growth response factors (Egrs) and fibroblast growth receptors (FGFRs), are located on chromosome 10. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

## CHROMOSOMAL LOCATION

Genetic locus: OPALIN (human) mapping to 10q24.1; Opalin (mouse) mapping to 19 C3.

## SOURCE

Opalin (FL-143) is a rabbit polyclonal antibody raised against amino acids 1-143 representing full length Opalin of mouse 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.

## RESEARCH USE

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

## APPLICATIONS

Opalin (FL-143) is recommended for detection of Opalin of mouse, rat and, to a lesser extent, 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).

Suitable for use as control antibody for Opalin siRNA (h): sc-90734, Opalin siRNA (m): sc-151308, Opalin shRNA Plasmid (h): sc-90734-SH, Opalin shRNA Plasmid (m): sc-151308-SH, Opalin shRNA (h) Lentiviral Particles: sc-90734-V and Opalin shRNA (m) Lentiviral Particles: sc-151308-V.

Molecular Weight of Opalin: 16 kDa.

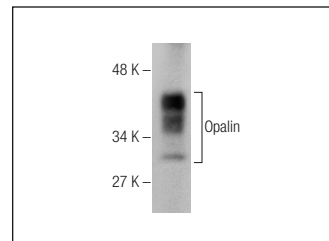
Molecular Weight of glycosylated Opalin: 34-39 kDa.

Positive Controls: mouse brain extract: sc-2253 or rat cerebellum extract: sc-2398.

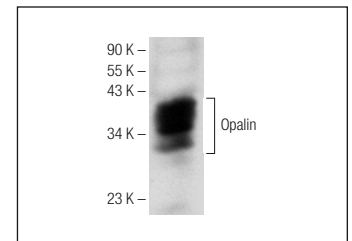
## RECOMMENDED SECONDARY REAGENTS

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



Opalin (FL-143): sc-135362. Western blot analysis of glycosylated Opalin expression in rat cerebellum tissue extract.



Opalin (FL-143): sc-135362. Western blot analysis of Opalin expression in mouse brain tissue extract.

## PROTOCOLS

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Try **Opalin (E-8): sc-376128** or **Opalin (H-12): sc-374490**, our highly recommended monoclonal alternatives to Opalin (FL-143).