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Research Use Only. Not for diagnostic or therapeutic use.

Storage: For long-term storage keep aliquots at -20°C. (Store no longer than 12 months at 4°C). Minimize freezing and thawing.

EB06339 - Goat Anti-CMG1 / CCDC2 / IFT74 Antibody

Size: 100µg specific antibody in 200µl

Target Protein

Principal Names: CMG1, coiled-coil domain containing 2, capillary morphogenesis protein 1, intraflagellar transport 74 homolog (Chlamydomonas), MGC111562, FLJ22621, CMG-1, CCDC2, IFT74
Official Symbol: IFT74
Accession Number(s): NP_001092692.1; NP_001092693.1; NP_079379.2; AAK77221.1
Human GeneID(s): 80173
Non-Human GeneID(s): 313365 (rat)

Immunogen

Peptide with sequence C-KTIVDALHSTSGN, from the C Terminus of the protein sequence according to NP_001092692.1; NP_001092693.1; NP_079379.2; AAK77221.1.

Please note the peptide is available for sale.

Purification and Storage

Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin.
Aliquot and store at -20°C. Minimize freezing and thawing.

Applications Tested

Peptide ELISA: antibody detection limit dilution 1:16000.
Western blot: Approx 70-75kDa band observed in lysates of cell line HEK293 (calculated MW of 69.2kDa according to AAK77221.1, but 51.4kDa according to NP_079379.1). The observed molecular weight corresponds to earlier findings in literature with different antibodies (Momeni et al, BMC Neurol. 2006 Dec 13;6:44.; PMID: 17166276).
Recommended concentration: 0.3-1µg/ml.
IHC: In paraffin embedded Human Liver shows vesicular staining in cytoplasm of hepatocytes. Recommended concentration, 5-10µg/ml.

Immunofluorescence: EB06339 was successfully used at 2.5mg/ml to stain rat cortical neurons (see picture and PMID: 17166276).

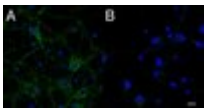
Species Reactivity

Tested: Human, Rat
Expected from sequence similarity: Human, Rat

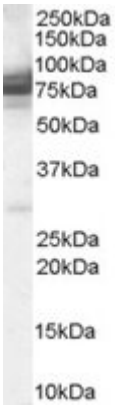
Specific References

This antibody has been successfully used in the following papers:
Momeni P, Schymick J, Jain S, Cookson MR, Cairns NJ, Greggio E, Greenway MJ, Berger S, Pickering-Brown S, Chiò A, Fung HC, Holtzman DM, Huey ED, Wassermann EM, Adamson J, Hutton ML, Rogaeva E, St George-Hyslop P, Rothstein JD, Hardiman O, Grafman J, Singleton A, Hardy J, Traynor BJ.
Analysis of IFT74 as a candidate gene for chromosome 9p-linked ALS-FTD.
BMC Neurol. 2006 Dec 13;6:44
PMID: 17166276

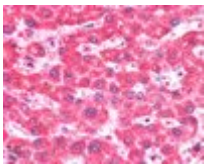
Boldt K et.al.
Disruption of intraflagellar protein transport in photoreceptor cilia causes Leber congenital amaurosis in humans and mice.
J Clin Invest. 2011 Jun 1;121(6):2169-80.
PMID: 21606596



A) EB06339 (2.5mg/ml) staining of primary rat cortical neurons showed localization of IFT74 to vesicles in the cell body and along the neuronal processes. B) Control. (Data were kindly provided by Dr. Bryan Traynor.)



EB06339 staining (0.3µg/ml) of 293 lysate (RIPA buffer, 35µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.



EB06339 (5µg/ml) staining of paraffin embedded Human Liver. Steamed antigen retrieval with citrate buffer pH 6, AP-staining. Figure 2: EB06339 (2.5mg/ml) staining of primary rat cortical neurons showed localization of IFT74 to vesicles in the cell body and along the neuronal processes. B) Control. (Data were kindly provided by Dr. Bryan Traynor.)