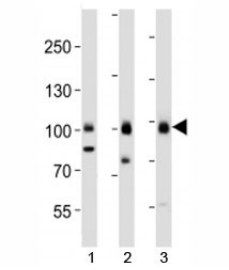
TLE1 Antibody / Wnt Signaling Corepressor (F52994)

Catalog No.	Formulation	Size
F52994-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F52994-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	Q04724
Applications	Western blot: 1:1000
Limitations	This TLE1 antibody is available for research use only.



TLE1 Antibody / Wnt Signaling Corepressor western blot analysis of human cell lines and brain tissue. Lane 1: HepG2 cell lysate, Lane 2: MCF-7 cell lysate, Lane 3: human brain tissue lysate. Proteins were separated by SDS-PAGE and transferred to a membrane for immunoblot detection using TLE1 Antibody / Wnt Signaling Corepressor. A band is detected at approximately 83 kDa in each lane, consistent with the predicted molecular weight of Transducin-Like Enhancer Protein 1 (TLE1). The detected band represents endogenous expression of the Groucho family transcriptional corepressor involved in Wnt signaling mediated transcriptional repression and beta-catenin pathway regulatory complexes.

Description

Transducin-Like Enhancer Protein 1 (TLE1) is a nuclear transcriptional corepressor encoded by the TLE1 gene and a member of the Groucho/TLE family of transcriptional regulatory proteins. TLE1 Antibody / Wnt Signaling Corepressor detects Transducin-Like Enhancer Protein 1, a key transcriptional corepressor that regulates gene repression within the Wnt signaling pathway. In the nucleus, TLE1 participates in transcriptional repression complexes that control expression of genes regulated by beta-catenin dependent signaling and developmental transcriptional programs.

TLE1 functions as a Wnt signaling transcriptional corepressor that interacts with transcription factors involved in beta-catenin pathway regulation. In the absence of Wnt signaling activation, transcription factors of the TCF/LEF family recruit Groucho/TLE corepressors such as TLE1 to promoter regions of Wnt target genes. These transcriptional repression complexes maintain silencing of Wnt responsive genes until activation of the Wnt pathway displaces corepressors and allows transcriptional activation.

Through its role in these regulatory complexes, Transducin-Like Enhancer Protein 1 acts as an important corepressor within Wnt pathway transcriptional regulation. TLE1 recruits chromatin modifying enzymes including histone deacetylases and chromatin remodeling proteins that suppress transcription of beta-catenin target genes. This repression mechanism allows cells to maintain tight control over Wnt signaling transcriptional outputs that influence cell proliferation, differentiation, and developmental gene expression programs.

The Wnt signaling pathway plays a critical role in embryonic development, stem cell maintenance, and tissue homeostasis. Within this regulatory network, TLE1 operates as a Wnt pathway transcriptional repression regulator, linking transcription factors to chromatin-based repression machinery. Because of this function, TLE1 serves as a key molecular component controlling the transcriptional state of Wnt responsive genes and maintaining repression of beta-catenin signaling targets when the pathway is inactive.

Antibodies recognizing Transducin-Like Enhancer Protein 1 enable researchers to investigate Wnt signaling transcriptional repression mechanisms, analyze expression of Wnt pathway regulatory corepressors, and study transcriptional regulatory complexes associated with beta-catenin dependent signaling networks. Detection of TLE1 therefore supports studies focused on transcriptional corepressor biology, Wnt pathway gene regulation, and chromatin-associated repression mechanisms controlling developmental signaling pathways.

Application Notes

Titration of the TLE1 Antibody / Wnt Signaling Corepressor may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This TLE1 Antibody / Wnt Signaling Corepressor was produced from a rabbit immunized with a KLH conjugated synthetic peptide between 187-221 amino acids from the N-terminal region of human TLE1.

Storage

Aliquot the TLE1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Transducin-like enhancer protein 1 antibody, Groucho homolog transcriptional corepressor TLE1 antibody, Transducin-like enhancer of split 1 antibody, Groucho family transcriptional corepressor antibody, Amino-terminal enhancer of split homolog antibody

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