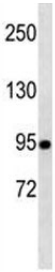
TLE1 Antibody / Notch Signaling Corepressor [clone 381CT18.5.1] (F40324)

Catalog No.	Formulation	Size
F40324-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F40324-0.08ML	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	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	381CT18.5.1
Purity	Purified
UniProt	Q04724
Applications	Western Blot : 1:100-1:250
Limitations	This TLE1 antibody is available for research use only.



TLE1 Antibody / Notch Signaling Corepressor western blot analysis of human A549 cells. Lane 1: human A549 whole cell lysate. Proteins were separated by SDS-PAGE and transferred to a membrane for immunoblot detection using TLE1 Antibody / Notch Signaling Corepressor (clone 381CT18.5.1). A band is detected at approximately 83 kDa, consistent with the predicted molecular weight of Transducin-Like Enhancer Protein 1 (TLE1). The observed band represents endogenous expression of the Groucho family transcriptional corepressor involved in Notch signaling mediated transcriptional repression pathways.

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 / Notch Signaling Corepressor (clone 381CT18.5.1) detects Transducin-Like Enhancer Protein 1, a transcriptional corepressor that plays a key role in Notch signaling mediated transcriptional repression. Within the nucleus, TLE1 participates in transcriptional regulatory complexes that maintain repression of Notch target genes until pathway activation relieves transcriptional inhibition.

TLE1 functions as a Notch signaling corepressor protein that associates with transcriptional regulatory complexes controlling expression of Notch-responsive genes. In the absence of active Notch signaling, Groucho/TLE family proteins including TLE1 bind transcriptional regulatory proteins at promoter regions to suppress transcription of downstream Notch pathway targets. Through recruitment of chromatin-modifying enzymes and histone deacetylases, TLE1 contributes to transcriptional repression complexes that regulate Notch signaling dependent gene expression.

Because the Notch signaling pathway plays a central role in developmental regulation and cellular differentiation, transcriptional repression of Notch target genes must be tightly controlled. TLE1 acts as a transcriptional corepressor within the Notch signaling pathway, linking transcription factors to chromatin remodeling machinery that suppresses gene transcription. These repression complexes allow cells to maintain Notch target genes in a repressed state until signaling cues activate transcriptional responses.

Members of the Groucho/TLE protein family are widely recognized as corepressors within Notch signaling transcriptional regulatory systems, where they coordinate transcriptional repression programs that regulate developmental signaling networks. Transducin-Like Enhancer Protein 1 therefore serves as an important Notch signaling corepressor that integrates transcription factor signaling with chromatin-associated repression mechanisms controlling gene expression.

Antibodies recognizing TLE1 enable researchers to investigate Notch pathway transcriptional repression mechanisms, examine expression of Notch signaling corepressor proteins, and study transcriptional regulatory complexes involved in developmental gene expression programs. Detection of Transducin-Like Enhancer Protein 1 therefore provides insight into regulatory networks where Notch signaling and transcriptional repression intersect to control cellular differentiation and developmental transcription programs.

Application Notes

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

Immunogen

A portion of amino acids 199-228 from the human protein was used as the immunogen for this TLE1 Antibody / Notch Signaling Corepressor.

Storage

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

Alternate Names

TLE1 Antibody / Notch Signaling CorepressorTLE1 Antibody / Notch Signaling Corepressor | F40324