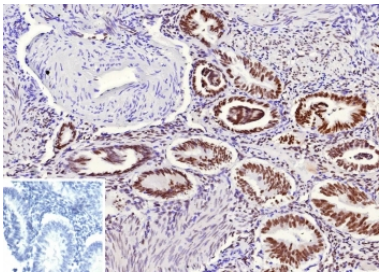
TLE1 Antibody / Groucho Family Transcriptional Corepressor [clone rTLE1/13032] (V5802)

Catalog No.	Formulation	Size
V5802-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5802-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5802SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

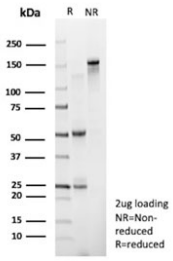
Recombinant | MOUSE MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2b, kappa
Clone Name	rTLE1/13032
Purity	Protein G affinity
UniProt	Q04724
Localization	Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This TLE1 antibody is available for research use only.



TLE1 Antibody / Groucho Family Transcriptional Corepressor immunohistochemistry analysis of human endometrium tissue using clone rTLE1/13032. Formalin-fixed paraffin-embedded human endometrium tissue shows nuclear staining in glandular epithelial cells consistent with expression of Transducin-Like Enhancer Protein 1, a member of the Groucho family transcriptional corepressor proteins that regulate gene expression through transcriptional repression complexes. Nuclear localization reflects the role of TLE1 as a Groucho family transcriptional corepressor functioning within chromatin-associated regulatory complexes controlling developmental gene expression programs. Stromal cells show weaker staining while epithelial structures demonstrate more prominent nuclear signal. The inset panel shows PBS used in place of the primary antibody as a secondary antibody negative control. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 Tris-EDTA buffer for 20 minutes followed by cooling prior to antibody staining.



SDS-PAGE analysis of purified, BSA-free TLE1 Antibody / Groucho Family Transcriptional Corepressor (clone rTLE1/13032) as confirmation of integrity and purity.

Description

Transducin-Like Enhancer Protein 1 (TLE1) is a nuclear regulatory protein encoded by the human TLE1 gene and is a member of the conserved Groucho family transcriptional corepressor proteins that regulate gene expression during development and cellular differentiation. TLE1 Antibody / Groucho Family Transcriptional Corepressor (clone rTLE1/13032) targets this transcriptional regulator that functions as part of the Groucho family transcriptional corepressor network controlling transcriptional repression complexes in multiple signaling pathways. Members of the Groucho family transcriptional corepressor family act as central scaffolding proteins that assemble transcriptional repression complexes responsible for regulating developmental gene expression programs.

TLE1 antibody, also referred to as Transducin-like enhancer protein 1 antibody or Groucho homolog TLE1 antibody in the literature, recognizes a transcriptional regulator belonging to the conserved Groucho family transcriptional corepressor family. Groucho family transcriptional corepressor proteins are widely studied because they interact with numerous transcription factors to suppress gene expression without binding DNA directly. Instead, Groucho family transcriptional corepressor proteins function as regulatory scaffolds that recruit chromatin remodeling enzymes and histone deacetylase complexes to silence transcription of specific target genes.

Structurally, TLE1 contains domain features characteristic of Groucho family transcriptional corepressor proteins. The N-terminal glutamine-rich region promotes oligomerization of transcriptional repression complexes, while the C-terminal WD repeat domain mediates interactions with transcription factors and regulatory proteins. These WD repeat motifs allow the Groucho family transcriptional corepressor proteins to form large multiprotein repression assemblies that regulate transcription factor activity and coordinate gene regulatory networks controlling cell fate and lineage specification.

Groucho family transcriptional corepressor proteins including TLE1 participate in several important developmental signaling pathways, including Notch signaling and Wnt signaling. In these pathways, Groucho family transcriptional corepressor complexes interact with transcription factor partners to suppress transcription of target genes and regulate developmental gene expression patterns. Through these transcriptional repression mechanisms, the Groucho family transcriptional corepressor proteins help coordinate developmental signaling outputs and maintain transcriptional balance during tissue differentiation.

Because Groucho family transcriptional corepressor proteins function as central transcriptional repression scaffolds, they have been widely studied in molecular biology research investigating transcriptional regulation and chromatin remodeling. TLE1 expression patterns have therefore been examined in numerous studies focused on transcriptional repression complexes and regulatory gene networks controlled by Groucho family transcriptional corepressor proteins.

A recombinant mouse monoclonal clone rTLE1/13032 antibody targets Transducin-Like Enhancer Protein 1 and enables detection of TLE1 protein expression in research studies investigating Groucho family transcriptional corepressor complexes, transcriptional repression mechanisms, and developmental gene regulation mediated by the Groucho/TLE family of transcriptional corepressors.

Application Notes

Optimal dilution of the TLE1 Antibody / Groucho Family Transcriptional Corepressor should be determined by the

researcher.

Immunogen

A recombinant full-length human TLE1 protein was used as the immunogen for the recombinant TLE1 antibody.

Storage

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

Alternate Names

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

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