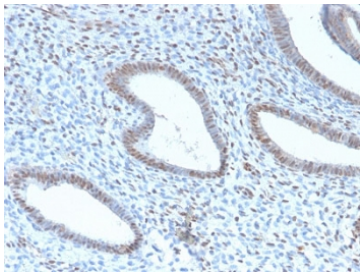
TLE1 Antibody / Transducin-Like Enhancer Protein 1 [clone TLE1/2946R] (V7357)

Catalog No.	Formulation	Size
V7357-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7357-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7357SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

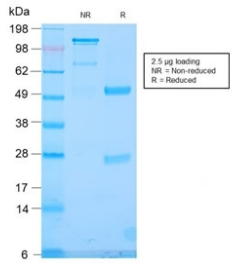
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	TLE1/2946R
Purity	Protein A affinity chromatography
UniProt	Q04724
Localization	Nuclear
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This TLE1 antibody is available for research use only.



TLE1 Antibody / Transducin-Like Enhancer Protein 1 immunohistochemistry analysis of human endometrial carcinoma using clone TLE1/2946R. Formalin-fixed paraffin-embedded human endometrial carcinoma tissue shows nuclear staining in tumor cells consistent with expression of Transducin-Like Enhancer Protein 1, a nuclear Groucho family transcriptional corepressor. TLE1 protein localization is primarily nuclear, reflecting its role in transcriptional repression complexes that regulate developmental signaling pathways including Notch and Wnt. The recombinant rabbit monoclonal clone TLE1/2946R antibody highlights nuclear staining within malignant epithelial cells while surrounding stromal elements show weaker or absent staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 Tris-EDTA buffer for 10-20 minutes followed by cooling prior to antibody staining.



SDS-PAGE analysis of purified, BSA-free recombinant TLE1/Transducin-Like Enhancer Protein 1 antibody (clone TLE1/2946R) as confirmation of integrity and purity.

Description

Transducin-Like Enhancer Protein 1 (TLE1) is a nuclear transcriptional corepressor encoded by the human TLE1 gene and is a member of the Groucho/TLE family of transcriptional regulatory proteins that control gene expression during development and cellular differentiation. TLE1 Antibody / Transducin-Like Enhancer Protein 1 (clone TLE1/2946R) targets this widely studied Transducin-Like Enhancer Protein 1 protein, a transcriptional repression scaffold that integrates signaling inputs from multiple developmental pathways. Transducin-Like Enhancer Protein 1 functions as a central regulatory component of transcriptional repression complexes that influence cell fate determination, embryonic patterning, and lineage specification.

TLE1 antibody, also referred to as Transducin-like enhancer protein 1 antibody or Transducin-like enhancer of split 1 antibody in the literature, recognizes a transcriptional regulator belonging to the conserved Groucho family of transcriptional corepressors. Transducin-Like Enhancer Protein 1 does not bind DNA directly but instead associates with DNA-binding transcription factors to suppress transcription of target genes. Through interactions with chromatin remodeling machinery and histone deacetylase complexes, Transducin-Like Enhancer Protein 1 promotes chromatin condensation and transcriptional silencing across multiple signaling networks that regulate developmental gene expression programs.

Structurally, Transducin-Like Enhancer Protein 1 contains an N-terminal glutamine-rich region that promotes oligomerization of transcriptional repression complexes and a C-terminal WD repeat domain that mediates protein-protein interactions with transcription factors and regulatory proteins. These WD repeat motifs enable Transducin-Like Enhancer Protein 1 to assemble large multiprotein repression complexes that regulate transcription factor activity and coordinate gene expression programs involved in cellular differentiation and tissue development.

Transducin-Like Enhancer Protein 1 participates in several major signaling pathways including Notch signaling and Wnt signaling, where it functions as a transcriptional corepressor downstream of pathway activation. In these pathways, Transducin-Like Enhancer Protein 1 interacts with transcription factor complexes to regulate genes controlling proliferation, differentiation, and developmental patterning. Because these signaling pathways are fundamental regulators of cell fate decisions, Transducin-Like Enhancer Protein 1 plays an important role in maintaining transcriptional balance during tissue development and cellular homeostasis.

In addition to its developmental roles, Transducin-Like Enhancer Protein 1 has been widely studied in cancer biology because altered expression of TLE1 can occur in certain tumor types. Numerous molecular pathology studies have examined Transducin-Like Enhancer Protein 1 expression patterns in tumors, reflecting the importance of this transcriptional corepressor in gene regulatory networks that influence tumor cell differentiation and transcriptional control mechanisms.

A recombinant rabbit monoclonal clone TLE1/2946R antibody targets Transducin-Like Enhancer Protein 1 and enables detection of TLE1 protein expression in research applications investigating transcriptional repression complexes, developmental signaling pathways, and regulatory gene expression networks controlled by the Groucho/TLE family of transcriptional corepressors.

Application Notes

Optimal dilution of the TLE1 Antibody / Transducin-Like Enhancer Protein 1 should be determined by the researcher.

Immunogen

A portion of amino acids 175-338 from the human protein was used as the immunogen for the TLE1/Transducin-Like Enhancer Protein 1 antibody.

Storage

Store the recombinant TLE1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

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

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