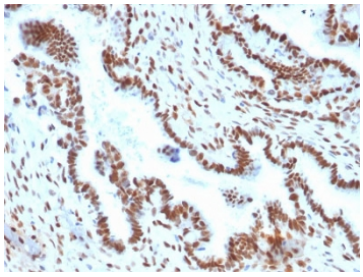
TLE1 Antibody / Transcriptional Corepressor [clone TLE1/2051] (V3924)

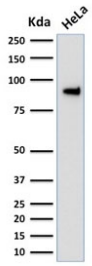
Catalog No.	Formulation	Size
V3924-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3924-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3924SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

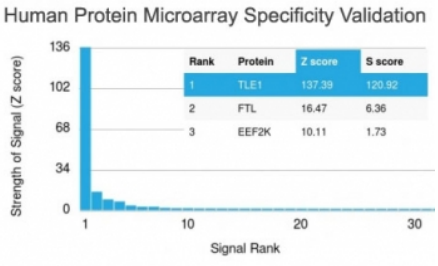
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	TLE1/2051
Purity	Protein G affinity chromatography
UniProt	Q04724
Localization	Nuclear
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This TLE1 antibody is available for research use only.



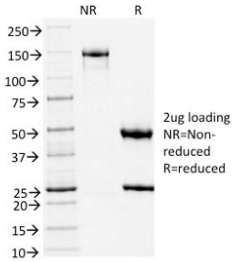
TLE1 Antibody / Transcriptional Corepressor immunohistochemistry analysis of human endometrial carcinoma. Formalin-fixed paraffin-embedded human endometrial carcinoma tissue stained with TLE1 Antibody / Transcriptional Corepressor (clone TLE1/2051) shows strong nuclear HRP-DAB brown staining in tumor epithelial cells, consistent with the nuclear localization of the TLE1 transcriptional corepressor. Transducin-Like Enhancer Protein 1 functions as a Groucho family transcriptional corepressor that regulates gene repression through interactions with transcription factors and chromatin-associated regulatory complexes. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 Tris-EDTA buffer for 10-20 minutes followed by cooling at room temperature prior to immunohistochemical staining.



Western blot testing of human HeLa cell lysate with TLE1 antibody (clone TLE1/2051). Predicted molecular weight ~83 kDa.



TLE1 Antibody / Transcriptional Corepressor protein microarray specificity analysis of clone TLE1/2051. Proteome-scale specificity screening was performed using a HuProt human protein microarray containing more than 19,000 individually purified full-length human proteins. TLE1 Antibody / Transcriptional Corepressor (clone TLE1/2051) demonstrated highly selective binding to Transducin-Like Enhancer Protein 1, producing the strongest signal on the array with a Z-score of 137.39 and an S-score of 120.92. Secondary signals detected for FTL and EEF2K were substantially lower, confirming strong preferential recognition of the intended TLE1 target protein. These data support the high specificity of clone TLE1/2051 for the TLE1 transcriptional corepressor across a large-scale proteomic screening platform.
Z-score represents the strength of the fluorescent signal generated when the antibody binds to a protein on the microarray and is expressed as standard deviations above the mean signal intensity across the array. S-score represents the difference between sequential Z-scores after ranking proteins by signal intensity and therefore reflects the relative specificity of the antibody for its intended antigen compared with other proteins present on the array.



SDS-PAGE analysis of purified, BSA-free TLE1 antibody (clone TLE1/2051) as confirmation of integrity and purity.

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 / Transcriptional Corepressor (clone TLE1/2051) detects Transducin-Like Enhancer Protein 1, a key transcriptional corepressor protein that regulates gene repression through interactions with DNA-binding transcription factors. In the nucleus, TLE1 functions as a transcriptional corepressor that participates in multiprotein repression complexes controlling transcriptional signaling pathways and developmental gene expression programs.

TLE1 acts as a central transcriptional corepressor within chromatin-associated repression machinery, linking transcription factors to chromatin-modifying enzymes that suppress gene transcription. Unlike transcription factors that bind DNA directly, transcriptional corepressor proteins such as TLE1 regulate gene expression by assembling repression complexes that recruit histone deacetylases and chromatin remodeling proteins. Through these transcriptional repression complexes, TLE1 converts transcription factor signaling into gene silencing at specific promoter regions.

As a member of the Groucho/TLE family, Transducin-Like Enhancer Protein 1 is widely recognized as a transcription factor corepressor that integrates signals from numerous regulatory pathways. TLE1 interacts with transcription factors involved in Wnt signaling, Notch signaling, and other developmental transcription networks, enabling transcriptional

repression of downstream target genes. Because of this central role in transcriptional corepressor activity, TLE1 serves as a key regulator of transcriptional repression programs that control cellular differentiation and lineage specification.

Studies of transcriptional repression mechanisms frequently rely on antibodies targeting transcriptional corepressor proteins. Detection of TLE1 allows investigators to examine expression of a nuclear transcriptional corepressor that participates in gene repression complexes and transcription factor regulatory networks. TLE1 antibody reagents are therefore useful tools for research focused on transcriptional regulation, chromatin-associated repression complexes, and transcription factor signaling pathways.

Because Transducin-Like Enhancer Protein 1 functions as a core transcriptional corepressor protein, antibodies recognizing TLE1 support studies investigating gene repression mechanisms and transcription factor regulatory systems mediated by the Groucho family of transcriptional corepressors. These regulatory proteins play an important role in converting transcription factor signaling into coordinated gene repression during development and cellular signaling responses.

Application Notes

Optimal dilution of the TLE1 Antibody / Transcriptional Corepressor 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 Antibody / Transcriptional Corepressor.

Storage

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

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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