

Product Information

MONOCLONAL ANTI-TCF-1 (T-Cell Factor-1), Clone 7H3 Purified Mouse Immunoglobulin

Product Number **T 5567**

Product Description

Monoclonal Anti-TCF-1 (T-Cell Factor-1) (mouse IgG isotype) is derived from the 7H3 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with a MBP fusion protein corresponding to amino acids 109-269 of human TCF-1A splice variant. The antibody is purified from ascites fluid using Protein G chromatography.

Monoclonal Anti-TCF-1 (T-Cell Factor-1) recognizes the multiple human TCF-1 isotypes using immunoblotting (26, 32, 38, 42 & 48 kDa). The antibody may be also be used for immunohistochemistry (frozen tissue).

T-cell factor-1, TCF-1, is a transcription factor of the High Mobility Group of DNA binding proteins. It is one member of a family of four proteins referred to as LEF/TCF transcription factors (LEF-1, TCF-1, TCF-3 and TCF-4). These factors play crucial roles in WNT/Wingless signaling, a signal transduction cascade that directs cell differentiation. Aberrant activation of the WNT/Wingless pathway is also a root cause in the genesis of certain cancers such as colon cancer, melanoma and breast cancer.

TCF-1 is closely related to LEF-1, both are transcription factors expressed in mice during T cell differentiation. They regulate the T cell receptor α enhancer in transfection assays. TCF-1 becomes transcriptionally active through interaction with β -catenin. Also, numerous splice variants of TCF-1 have been identified. Overexpression of TCF-1-specific splice variant forms appears to correlate with the metastatic behavior of colorectal cancer cells and with overproduction of lymphoid tyrosine protein kinase p56(lck).

Reagent

Monoclonal Anti-TCF-1 (T-Cell Factor-1) is supplied as a solution in 0.1 M Tris-glycine, pH 7.4, containing 0.15 M sodium chloride, 30 % glycerol and 0.08 % sodium azide.

Protein concentration is approximately 1 mg/ml.

Precautions and Disclaimer

Due to the sodium azide content a material safety sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

Store at 0 °C to -20 °C. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

A working concentration of 0.5 μ g/ml to 2 μ g/ml is recommended for immunoblotting using whole extracts of human Jurkat cells.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

1. Castrop, K., et al., The human TCF-1 gene encodes a nuclear DNA-binding protein uniquely expressed in normal and neoplastic T-linkage lymphocytes. *Blood*, **86**, 3050-3059 (1995).
2. Mayer, K., et al., Ectopic activation of lymphoid high mobility group-box transcription factor TCF-1 and overexpression in colorectal cancer cells. *Int. J. Cancer*, **72**, 625-630 (1997).
3. Staal, F.J., et al., Tcf-1-mediated transcription in T lymphocytes: differential role for glycogen synthase kinase-3 in fibroblasts and T cells. *Int. Immunol.*, **11**, 317-323 (1999).

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