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Product Information

Monoclonal Anti-TBP, clone 58C9
produced in mouse, purified immunoglobulin

Product Number **T1827**

Product Description

Monoclonal Anti-TBP (mouse IgG2b isotype) is derived from the hybridoma 58C9 produced by the fusion of mouse myeloma cells and splenocytes from Swiss Webster mice immunized with *Drosophila* TFIID complex.[1] The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-TBP reacts specifically with human,[2] yeast,[3] *Drosophila*,[1] *Spodoptera frugiperda*,[4] and maize[3] TBP. Applications include immunoblotting (~42 kDa)[1, 4] and immunoprecipitation.[1]

TFIIA, B, D, E, F, and H are general transcription factors that together with RNA polymerase II (Pol II) are responsible for the pre initiation complex involved in eukaryotic transcription. TFIID complex contains the TATA-binding protein (TBP) and over a dozen of TBP-associated factors (TAFs). It binds to the core promoter, which is an important step in transcription initiation. TBP mediates promoter recognition through the sequence-specific binding of the TATA element found in many promoters.[1, 5-7] This recruitment is a rate-limiting step in most of the promoters. In addition to TAFs, other transcription factors associate with TBP to mediate transcription, such as the TFIIA factor. This factor stabilizes the interaction between TBP and DNA at the TATA element. Mutations in TBP or TFIIA show the importance of their interaction for transcription *in vivo*. TFIIA can act both as a coactivator, since some of the transcription activators are dependent on its existence, and as an anti-repressor, since TFIIA can mediate displacement of certain transcriptional inhibitors that act on TBP.[6]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~2.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For extended storage, freeze at –20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1-2 μg/mL is recommended using nuclear extracts of D.Mel cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

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6. Kraemer, S.M., et al., *Mol. Cell. Biol*., **21**, 1737-1746 (2001).
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