

Product Information

Anti-dTAF80 antibody, Mouse monoclonal

Clone 3D10, Purified from Hybridoma Cell Culture

T2827

Product Description

Monoclonal Anti-dTAF80 (mouse IgG2b isotype) is derived from the hybridoma 3D10 produced by the fusion of mouse myeloma cells and splenocytes from mice immunized with *Drosophila* TFIID complex (Gene ID: 47900). The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, (ISO2). The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-dTAF80 reacts specifically with *Drosophila* dTAF80. Applications include ELISA and immunoblotting (approximately 80 kDa).⁵

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 TBP associated factors (TAFs). It binds to the core promoter, an important step in transcription initiation. TBP mediates promoter recognition through the sequence-specific binding of the TATA element found in many promoters.¹⁻⁴ This recruitment is a rate-limiting step in most of the promoters. The role of TAFs in transcription is not clear and it is proposed that they function as obligatory co-activators essential for activator response.

Some of the promoters respond to specific TAFs. For example, inactivation of TAF145/130 affects the transcription of only few genes, while inactivation of other TAFs like TAF17, TAF40, TAF60, TAF61/68 and TAF23/25 results in dramatic effects on a large number of genes transcribed by Pol II. TAF proteins were found also in other complexes like SAGA, TFTC and PCAF suggesting that they may have other functions in transcription.¹⁻⁴ dTAF80 (also known as TAF5) contains several copies of the WD40 (β -transducin) repeat and shares extended sequence similarity with an *Arabidopsis* gene, COP1, which encodes a putative transcription factor that is thought to regulate development. Purified recombinant dTAF80 is unable to bind TBP directly or to interact with the C terminal domain of dTAFII250 (delta N250). Instead, dTAF80 recognizes and interacts with a higher-order complex containing TBP, delta N250, 110 and 60. Thus, the formation of TFIID may require an ordered assembly of the TAFs, some of which bind directly to TBP while others that are tethered to the complex as a result of specific TAF/TAF interactions.^{5,6}

Reagent

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

Antibody concentration:

Approximately 1.0 mg/mL.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses.

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 8-16 µg/mL is recommended using nuclear extracts of D.Mel cells.

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

It is recommended to use freshly prepared extracts.

References

1. Hoey, T., et al., Cell, 72, 247-260 (1993).
2. Weinzierl, R.O.J., et al., Nature, 362, 511-517 (1993).
3. Kraemer, S.M., et al., Mol. Cell. Biol., 21, 1737-1746 (2001).
4. Hochheimer, A., and Tjian, R., Genes Dev., 17, 1309-1320 (2003).
5. Wright, K. J., et al., Proc. Nat. Acad. Sci., 103, 12347-12352 (2006).
6. Dynlacht, B.D., et al., Nature, 363, 176-179 (1993).

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