

Technical Data Sheet

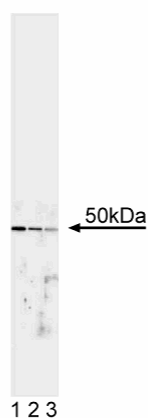
Purified Mouse Anti-Mouse TFE3

Product Information

Material Number:	554263
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	G138-312
Immunogen:	TFE3-L Protein
Isotype:	Mouse IgG1
Reactivity:	Mouse
Target MW:	50 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

TFE3 is a ubiquitously expressed 50 kDa transcription factor containing both basic helix-loop-helix (bHLH) and leucine zipper (ZIP) motifs. It was initially identified as a protein which bound to the μ E3 site in the immunoglobulin heavy chain enhancer. In addition, it binds to the MLTF/USF site in the adenovirus major late promoter. Upon binding as a dimer, it induces a minor groove-oriented bend in the DNA, similar to other HLH proteins such as TFE3, USF, myc, and max. Binding results in transcriptional activation and is mediated through the basic region located just N-terminal to the HLH domain. Clone G138-312 recognizes TFE3. The antibody was raised against a bacterially expressed TFE3-L protein consisting of 327 amino acids encoded by nucleotides 361-2469 of the cloned cDNA.



Western blot analysis of TFE3. Lysate from WI-38 cells was probed with anti- TFE3 (clone G138-312) at concentrations of 1.0 (lane 1), 0.5 (lane 2), and 0.25 μ g/ml (lane 3). TFE3 is identified as a band of 50 kDa.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C.

Application Notes

Application

Western blot	Routinely Tested
Gel shift	Reported
Immunoprecipitation	Reported

Recommended Assay Procedure:

Applications include western blot analysis (0.25-1.0 μ g/ml). WI-38 cells are suggested as a positive control. Other applications include gel shift (supershifts) and immunoprecipitation, which are not routinely tested by BD Biosciences Pharmingen. The antibody has been used to detect *in vitro* translated TFE3-L and TFE3-L, expressed as a recombinant protein in bacteria. In gel shift assays, using μ E3 as a probe, this antibody supershifts the complex.

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Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
611476	WI-38 Cell Lysate	500 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

- Beckmann H, Su LK, Kadesch T. TFE3: a helix-loop-helix protein that activates transcription through the immunoglobulin enhancer muE3 motif. *Genes Dev.* 1990; 4(2):167-179.(Biology)
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- Zhao GQ, Zhao Q, Zhou X, Mattei MG, de Crombrughe B. TFEC, a basic helix-loop-helix protein, forms heterodimers with TFE3 and inhibits TFE3-dependent transcription activation. *Mol Cell Biol.* 1993; 13(8):4505-4512.(Clone-specific)