

Product Information

Monoclonal Anti-E2F-6, Clone TFE61

produced in mouse, purified immunoglobulin

Catalog Number **E1532**

Product Description

Monoclonal Anti-E2F-6 (mouse IgG1 isotype) is derived from the hybridoma TFE61 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a human recombinant E2F-6 protein (GeneID 1876). The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2.

Monoclonal Anti-E2F-6 recognizes human E2F-6. The antibody may be used in various immunochemical techniques including ELISA, immunoblotting (~35 kDa), and immunocytochemistry.

The E2F transcription factors are a family of genes that play critical roles in regulation of cellular proliferation and differentiation. They act by controlling the transcriptional state of genes whose expression is essential for cell cycle progression and DNA synthesis. This family consists of nine protein species; E2Fs 1-8, which are divided into three classes.¹

E2F-6, also known as E2F6 and E2F transcription factor 6) belongs to the third class of E2Fs. This class lacks both the retinoblastoma protein binding and transcriptional activation domain, and is an active repressor of transcription.^{2,3} Its activities are mediated through its recruitment of polycomb transcriptional repressor complexes in a histone methylation-independent manner.^{4,5} Furthermore, E2F6 associates with E2F target genes that are activated at G1/S phase. Its repression activity during the S-phase distinguishes G1/S and G2/M transcription during cell cycle.⁶ The fact that E2F6 repressor element has been found on BRCA1 promoter, together with its transcriptional regulation by other transcription factors, including E2Fs, may also point to its involvement in various cancerous processes.⁷

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: ~ 1.0 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 continuous use, store at 2-8 °C for up to one month. 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 2-4 µg/mL is recommended using HeLa nuclear cell extract.

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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3. Gaubatz, S., et al., *Proc. Natl. Acad. Sci. USA*, **95**, 9190-9195 (1998).
4. Trimarchi, J.M., et al., *Proc. Natl. Acad. Sci. USA*, **98**, 1519-1524 (2001).
5. Oberley, M.J., et al., *J. Biol. Chem.*, **278**, 42466-42476 (2003).
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7. MacDonald, G., et al., *Breast Cancer Res.*, **9**, R49 (2007).

GG,KAA,PHC 08/08-1