

Product Information

E2F transcription factor 6 human, histidine tagged recombinant, expressed in *Escherichia coli*

Catalog Number **E2410**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

Synonyms: E2F6, mgc111545

Product Description

E2F6 is a member of the E2F family of transcription factors that play an important role in the regulation of cell cycle progression. In normal cells, E2F activity is regulated by binding to pRB, the product of the retinoblastoma gene, and by binding to "pocket proteins", p107 and p130.

E2F6 lacks N-terminal sequences of E2F1–3 proteins and also the C-terminal domain that contains the activation and pocket protein binding domains.^{1–3} Due to the absence of these domains, E2F6 appears to function as a Rb-independent transcriptional repressor.^{4–6}

Multiple transcript variants encoding several different isoforms have been found for the *E2F6* gene.^{7,8} E2F6 transcriptional repression appears to regulate a subset of E2F-dependent genes, encoding proteins required for entry into the cell cycle but not for normal cell cycle progression.^{1,9} Moreover, *E2F6* is considered to be a tumor suppressor gene showing up-regulated activity in melanoma cells in which there is an inhibition of the tumorigenesis phenotype.¹⁰

E2F6 is part of a multimeric protein complex that contains the transcription factors Mga and Max, and chromatin modifiers such as a novel histone methyltransferase. This E2F6 complex preferentially occupies target promoters in G₀ cells rather than in G₁ cells.¹¹ It is thought that the biological properties of E2F6 may be mediated through its ability to recruit the polycomb transcriptional repressor complex and histone methyltransferases.^{6,11}

The product is supplied as a solution in 50 mM Tris, pH 7, 1 mM EDTA, 1 mM DTT, and 30% (w/v) glycerol.

Purity: $\geq 90\%$ (SDS-PAGE)

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

Store the product at $-20\text{ }^{\circ}\text{C}$. The product is stable for at least 2 years as supplied.

After initial thawing, it is recommended to store the product in working aliquots at $-20\text{ }^{\circ}\text{C}$.

References

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