

**DESCRIPTION**

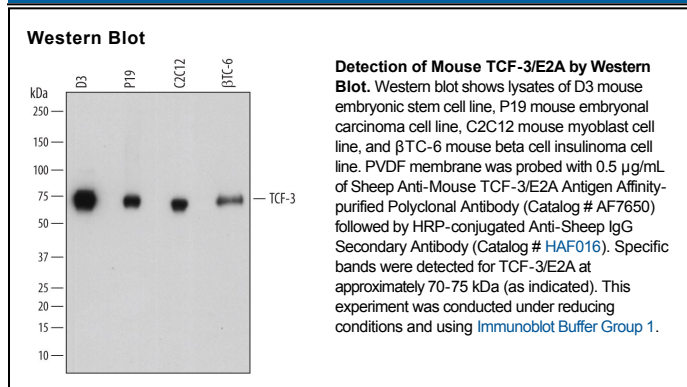
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse TCF-3/E2A in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse TCF-3/E2A Asn33-Arg159 Accession # P15806
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.5 µg/mL	See Below

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

TCF-3 (Transcription factor 3; also Transcription factor A1 and E2A/alpha plus E12/E47) is a 68-75 kDa nuclear class I member of the bHLH family of molecules. It should not be confused with TCF-3, otherwise known as TCF7-L1, an epidermis-associated β-catenin regulator. TCF-3 is ubiquitously expressed, and generally serves as a transcriptional regulator. It is able to form covalent homodimers, and following phosphorylation, heterodimers with tissue-specific class II bHLH factors, thus impacting the proliferation and differentiation of select cell types. While heterodimers, and possibly homodimers, activate genes by binding to E boxes, heterodimers involving Id proteins are gene repressors. Mouse TCF-3/E12 is 651 amino acids (aa) in length. It contains one Leu-zipper motif (aa 387-422) plus a bHLH domain (aa 544-604). TCF-3 contains at least three potential Ser phosphorylation sites. There is one alternative splice form that is termed E47 and shows a 69 aa substitution for aa 527-598. This involves the bHLH domain, and it is believed that each splice form has a distinct function(s). Both splice forms (E12 and E47) do occur simultaneously in the same cell type. Over aa 33-159, mouse TCF-3 shares 94% and 75% aa sequence identity with rat and human TCF-3, respectively.