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R&D SYSTEMS

Mouse TCF-3/E2A Alexa Fluor® 488-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 826927
Catalog Number: FAB7650G
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse TCF-3/E2A in ELISAs. In direct ELISAs, no cross-reactivity with recombinant human TCF-3 is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 826927
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant mouse TCF-3/E2A Asn33-Arg159 Accession # P15806
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

PRODUCT SPECIFIC NOTICES

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