

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Twist-1 in direct ELISAs.
<b>Source</b>	Recombinant Monoclonal Mouse IgG <sub>1</sub> Clone # 927403R
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	<i>E.coli</i> -derived recombinant human Twist-1 Met1-His202 Accession # Q15672
<b>Conjugate</b>	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Intracellular Staining by Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	A549 human lung carcinoma cell line fixed and permeabilized with FlowX FoxP3 Fixation & Permeabilization Buffer Kit (Catalog # <a href="#">FC012</a> )

## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

Twist-1 (Twist-related protein 1; also H-Twist and bHLHa38) is a 25-27 kDa class B member of the bHLH transcription factor family of proteins. It is widely expressed in embryo, and select adult cells such as white adipocytes. In fat, Twist-1 induces fatty acid oxidation via PGC-1α and CPT-1, and promotes MCP-1 and TNF-α secretion by adipocytes. In epithelium, Twist-1 dysregulation represses E-Cadherin and induces N-Cadherin expression, resulting in an epithelial-to-mesenchymal transition that can lead to cancer. Human Twist-1 is 202 amino acids (aa) in length. It contains a bHLH domain (aa 109-164) with an embedded DNA-binding motif. Twist-1 forms homodimers, and heterodimerizes with TCF3, HAND 1 and HAND 2. Two distinct mutations exist that may impact its dimerization pattern. There is one seven aa insertion after Ile135, and a second seven aa insertion after Pro139. A third unrelated variant shows a four Gly insert after Gly92. Full-length human Twist-1 shares 98% aa identity with mouse Twist-1.

## PRODUCT SPECIFIC NOTICES

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