

Human Twist-1 Fluorescein-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: IC6230F 100 TESTS

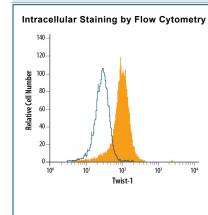
DESCRIPTION			
Species Reactivity	Human		
Specificity	Detects human Twist-1 in direct ELISAs. In direct ELISAs, less than 16% cross-reactivity with recombinant human Twist-2 is observed.		
Source	Polyclonal Sheep IgG		
Purification	Antigen Affinity-purified		
Immunogen	E. coli-derived recombinant human Twist-1 Met1-His202 Accession # Q15672		
Conjugate	Fluorescein Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm		
Formulation	Supplied 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 Shee (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.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 μL/10 ⁶ cells	See Below

DATA



Detection of Twist-1 in HeLa Human Cell Line by Flow Cytometry.

HeLa human cervical epithelial carcinoma cell line was stained with Sheep Anti-Human Twist-1 Fluorescein-conjugated Antigen Affinity-purified Polyclonal Antibody (Catalog # IC6230F, filled histogram) or isotype control antibody (Catalog # IC016F, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

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

Twist-1 (Twist-related protein 1; also known as 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.

