

Datasheet for ABIN1177026

anti-eIF4EBP1 antibody (pThr69) (Alexa Fluor 488)[Go to Product page](#)**2** Publications

Overview

Quantity:	50 tests
Target:	eIF4EBP1 (EIF4EBP1)
Binding Specificity:	pThr69
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This eIF4EBP1 antibody is conjugated to Alexa Fluor 488
Application:	Intracellular Staining (ICS)

Product Details

Brand:	BD Phosflow™
Immunogen:	Phosphorylated Human 4EBP1 (pT69) Peptide
Clone:	M34-273
Isotype:	IgG1 kappa
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	eIF4EBP1 (EIF4EBP1)
Alternative Name:	4EBP1 (EIF4EBP1 Products)

Target Details

Background:	The eukaryotic translation initiation factor 4E-Binding Protein 1 (4EBP1) is a phosphorylated heat- and acid-stable protein (PHAS-I or PHAS-1), and it is regulated by insulin. It is a member of the eIF4E-Binding Protein Family, which also includes the proteins 4EBP2 and 4EBP3. 4EBP1 binds with eukaryotic translation Initiation Factor 4E (eIF4E), which prevents its assembly into the eIF4E complex and inhibits cap-dependent translation. When 4EBP1 is phosphorylated, this binding is disrupted, allowing cap-dependent translation to be activated. Phosphorylation of 4EBP1 is required for protein synthesis, and it mediates the regulation of protein translation by stimuli that signal through the phosphoinositide 3 (PI3) kinase pathway. We found that threonine 69 (T69) is phosphorylated in resting human peripheral blood monocytes, but it is almost undetectable in resting lymphocytes. PI3 kinase inhibitors, such as LY294002 down-regulate the phosphorylation level of 4EBP1 (pT69) in monocytes. The M34-273 monoclonal antibody recognizes the phosphorylated T69 of activated human 4EBP1. Synonyms: 4E-BP1, EIF4EBP1, P/OKCL.6, PHAS-I, PHAS-1
Pathways:	MAPK Signaling , PI3K-Akt Signaling , RTK Signaling , AMPK Signaling , Regulation of Cell Size , BCR Signaling

Application Details

Application Notes:	Either BD Cytotfix™ fixation buffer or BD™ Phosflow Fix Buffer I may be used for cell fixation. Any of the three BD™ Phosflow permeabilization buffers may be used.
Sample Volume:	20 µL
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Aqueous buffered solution containing BSA and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	The antibody was conjugated to Alexa Fluor® 488 under optimum conditions, and unreacted Alexa Fluor® 488 was removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Publications

Product cited in: Hay, Sonenberg: "Upstream and downstream of mTOR." in: **Genes & development**, Vol. 18, Issue 16, pp. 1926-45, (2004) ([PubMed](#)).

Gingras, Raught, Gygi, Niedzwiecka, Miron, Burley, Polakiewicz, Wyslouch-Cieszyńska, Aebersold, Sonenberg: "Hierarchical phosphorylation of the translation inhibitor 4E-BP1." in: **Genes & development**, Vol. 15, Issue 21, pp. 2852-64, (2001) ([PubMed](#)).