

Anti-Phospho-4E-BP1[Thr37/46]-149Sm

Catalog #: 3149005A

Package Size: 50 tests

Storage: Store product at 4°C. Do not freeze.

Cross Reactivity: Rat, Mouse, Human, Monkey

Clone: 236B4

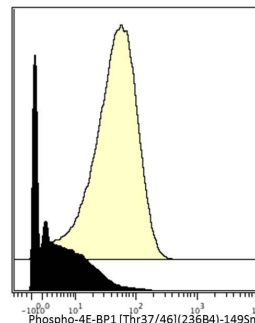
Isotype: Rabbit IgG

Formulation: Antibody stabilizer with 0.05% Sodium Azide

Technical Information

Validation: Each lot of conjugated antibody is quality control tested by CyTOF[®] analysis of stained cells using the appropriate positive and negative cell staining and/or activation controls.

Recommended Usage: The suggested use is 1 µl for up to 3 X 10⁶ live cells in 100 µl. It is recommended that the antibody be titrated for optimal performance for each of the desired applications.



Human Jurkat T cells untreated (top) or incubated for 2 hours with Wortmannin (bottom). Cells were then fixed, permeabilized, and stained with 149Sm-anti-Phospho-4E-BP1 [Thr37/46](236B4).

Description

4E-BP1, also known as PHAS-1, is a member of the 4E-BP (eIF4E-Binding Protein) family of translational repressors, which also includes 4E-BP2 and 4E-BP3. Hypophosphorylated 4E-BP1 binds tightly to eIF4E, the mRNA cap-binding protein, thereby repressing mRNA translation. 4E-BP1 undergoes phosphorylation by MAPK, ATM or mTOR in response to various growth factors which induces the dissociation of 4E-BP1 from eIF4E, thus enabling eIF4E to promote mRNA translation. Within the hematopoietic compartment, 4E-BP1 is expressed at high levels in monocytes and low levels in T cells. The 236B4 antibody reacts with 4E-BP1 phosphorylated at threonine 37/46 residues.

References

Bandura, D. R., et al. Mass Cytometry: Technique for Real Time Single Cell Multitarget Immunoassay Based on Inductively Coupled Plasma Time-of-Flight Mass Spectrometry. *Analytical Chemistry* 81:6813-6822, 2009.

Ornatsky, O. I., et al. Highly multiparametric analysis by mass cytometry. *J Immunol Methods* 361 (1-2):1-20, 2010.

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