

Anti-p4E-BP1 [T37/T46] (236B4)-149Sm

Pathologist-Verified Clone for Imaging Mass Cytometry™

Catalog number: 3149023D

Package size and concentration: 25 µg, 0.5 mg/mL

Clone: 236B4

Isotype: Rabbit IgG

Pathologist-verified on: Human FFPE

Fluidigm tested on: Human FFPE, Mouse FFPE

Reported reactivity: Rat, Mouse, Human, Monkey

Formulation: Antibody stabilizer with 0.05% sodium azide

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

Application: IMC paraffin

Technical Information

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, inducing 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.

Application: The metal-tagged antibody is designed and formulated for the application of Imaging Mass Cytometry™ (IMC™) using the Fluidigm Hyperion™ Imaging System on formalin-fixed, paraffin-embedded (FFPE) tissue sections.

Quality control: Each lot of conjugated antibody is quality control- tested by Imaging Mass Cytometry on tissue sections

Recommended concentration: For optimal performance it is recommended that the antibody be titrated for the desired application. Suggested initial dilution range: IMC-Paraffin: 1:25 to 1:100

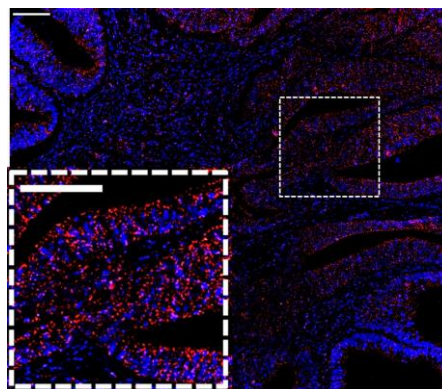
References

Chang, Q. et al. "Staining of frozen and formalin-fixed, paraffin-embedded tissues with metal-labeled antibodies for Imaging Mass Cytometry analysis." *Current Protocols in Cytometry* 82 (2017): 12.47.1–12.47.8.

Giesen, C. et al. "Highly multiplexed imaging of tumor tissues with subcellular resolution by mass cytometry." *Nature Methods* 11 (2014): 417–22.

Safety

Use standard laboratory safety protocols. Read and understand the safety data sheets (SDSs) before handling chemicals. To obtain SDSs, go to fluidigm.com/sds and search for the SDS using either the product name or the part number.



Human colon adenocarcinoma (FFPE) stained with 149Sm-anti-phospho-4E-BP1 [T37/T46] (236B4) at a dilution of 1:50 (red pseudocolor) and iridium DNA intercalator (blue pseudocolor). Heat-mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.

Scale bar size = 100 µm.

For technical support visit techsupport.fluidigm.com. | For general support visit fluidigm.com/support.

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