Anti-pS6 [S235/S236]-175Lu

Pathologist-Verified Clone for Imaging Mass Cytometry™

Catalog: 3175031D
Package size and concentration: 25 µg, 0.5 mg/mL
Storage: Store at 4 °C. Do not freeze.
Reactivity: Human, Mouse, Rat

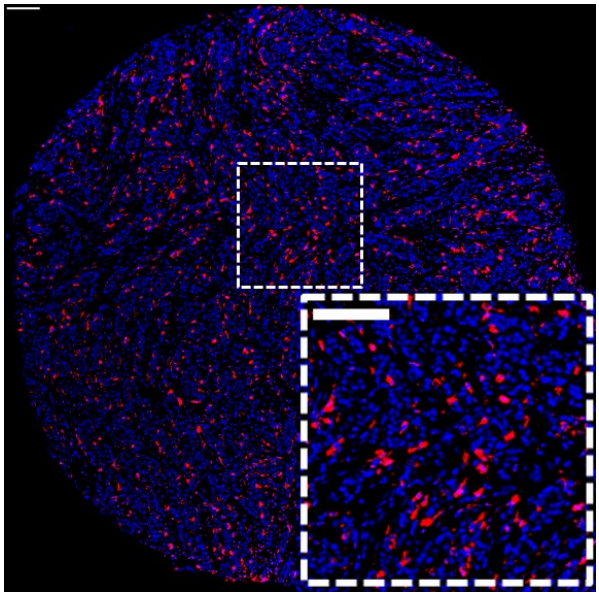
Clone: N7-548
Isotype: Mouse IgG1
Formulation: Antibody stabilizer with 0.05% sodium azide
Application: IMC-Paraffin

Technical Information

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: 1:50 to 1:200



Human breast carcinoma (FFPE) stained with 175Lu-anti-pS6 (N7-548) at a dilution of 1:100 (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.

Description

Ribosomal protein S6 belongs to the S6E family of ribosomal proteins and is a component of the 40S ribosomal subunit. It plays a role in regulation of translation and thus relates to the growth of cells. Phosphorylation of S6 at multiple C-terminal serine residues, including S235, S236, S240 and S244, activates it. Activated S6 up-regulates ribosomal translation of RNA species. These phosphorylations are mediated by various kinases, including p70S6K and PKCδ, and activated through cellular responses to extrinsic factors. The N7-548 monoclonal antibody specifically detects the S6 ribosomal protein phosphorylated at S235 and S236.

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.