

Anti-pERK1/2 [T202/Y204] (D13.14.4E)-171Yb

Pathologist-Verified Clone for Imaging Mass Cytometry™

Catalog number: 3171021D

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

Clone: D13.14.4E

Isotype: Rabbit IgG

Pathologist-verified on: Human FFPE

Fluidigm tested on: Human FFPE, Mouse FFPE

Reported reactivity: Human, Mouse, Rat, Bovine, Canine, Porcine, Hamster, Monkey

Formulation: Antibody stabilizer with 0.05% sodium azide

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

Application: IMC paraffin

Technical Information

Description: ERK1 and ERK2, also known as p44 and p42 MAPKs, are similar (85% sequence identity) members of the mitogen-activated protein kinase (MAPK) family of serine/threonine protein kinases. ERK1/2 signaling is important in the cellular response to a wide range of stimuli including growth factors, cytokines, and mitogens. The signal cascade upstream of ERK1/2 typically begins with receptor tyrosine kinases phosphorylating members of the Raf family and other MAP kinase kinase kinases (MAP3Ks), which thereby activate MEK1 and MEK2, the MAP kinase kinases (MAPKKs) directly responsible for phosphorylation of ERK1 and ERK2. ERK1 and ERK2 are activated through phosphorylation of the activation loop residues Thr202/Tyr204 and Thr185/Tyr187, and dual phosphorylation is required for full activity. ERK1/2 can activate the RSK family of kinases in the cytoplasm and transcription factors including Elk-1 in the nucleus.

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

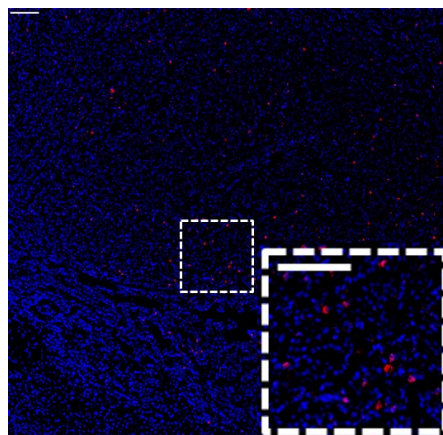
References

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 hepatocellular carcinoma (FFPE) stained with 171Yb-anti-pERK1/2 (D13.14.4E) 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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