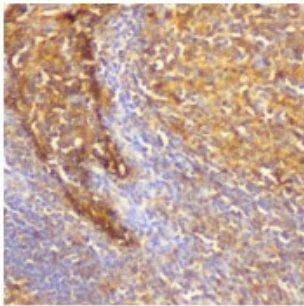
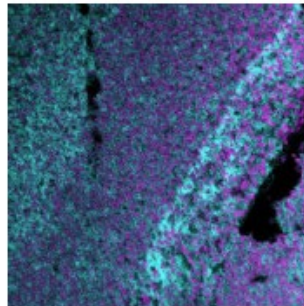


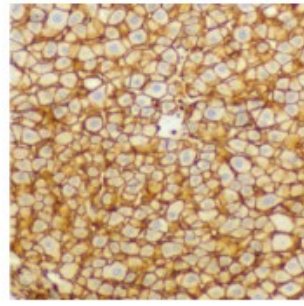
## Na-K-ATPase (D4Y7E) – 176Yb

**Catalog:** 717601**Clone:** D4Y7E**Isotype:** Rabbit IgG**Reactivity:** Human\***Application:** MIBI-FFPE**Storage:** Supplied in antibody stabilizer with 0.05% sodium azide. Store at 4°C.

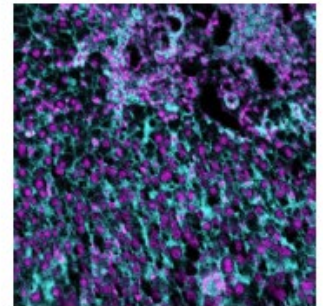
**IHC:** Na/K-ATPase antibody staining of FFPE human tonsil



**MIBI:** Na/K-ATPase antibody staining (cyan) of FFPE human tonsil, counterstained with dsDNA (magenta)



**IHC:** Na/K-ATPase antibody staining of FFPE human liver



**MIBI:** Na/K-ATPase antibody staining (cyan) of FFPE human liver, counterstained with dsDNA (magenta)

### Background

Na/ K-ATPase is a widely expressed membrane protein that functions as an ion pore, exporting sodium and importing potassium. The alpha, beta and FXYD subunits combine to form Na/K-ATPase. The regulation of intracellular concentrations of various ions control signaling pathways and other enzymatic processes, such as neurotransmitter re-uptake in astrocytes. Na/K-ATPase activity is regulated through multiple phosphorylation sites. Mutations in the alpha subunit of Na/K-ATPase, in particular, have been shown to adversely impact ionic homeostasis, contributing to neurological disease.

### Validation

Each lot of conjugated antibody is quality control tested by staining tissue following the MIBI Staining Protocol optimized for the applicable tissue format with subsequent MIBIScope analysis using the appropriate positive and negative tissue field of views. These results are pathologist verified.

### Recommended Usage

Human FFPE: 1:100 dilution. For optimal results, the antibody should be titrated for each desired application.

### References

1. Clausen, M.V., Hilbers, F. and Poulsen H. (2017) The Structure and Function of the Na,K-ATPase Isoforms in Health and Disease. *Front. Physiol.* 8:371. doi: 10.3389/fphys.2017.00371

\* Conjugate tested on human and mouse FFPE tissue.

**Notes not printed with TDS**

(specify lot of antibody used to create this TDS and mibiruns the images are from. If IHC slide # is known please include below)

For example:

**IHC slide deck:**

Mouse: [https://docs.google.com/presentation/d/11qJlyhdOnEmZsDOqhz8wzBStwBuVER3-s9rL1SWJIE4/edit#slide=id.g71ca3f7df4\\_O\\_49](https://docs.google.com/presentation/d/11qJlyhdOnEmZsDOqhz8wzBStwBuVER3-s9rL1SWJIE4/edit#slide=id.g71ca3f7df4_O_49)

**IHC slides used for TDS: 3909 Bottom (mouse), 0.5 ug/mL**

**MIBI slide deck:**

Mouse: [https://docs.google.com/presentation/d/11qJlyhdOnEmZsDOqhz8wzBStwBuVER3-s9rL1SWJIE4/edit#slide=id.g881987d605\\_O\\_257](https://docs.google.com/presentation/d/11qJlyhdOnEmZsDOqhz8wzBStwBuVER3-s9rL1SWJIE4/edit#slide=id.g881987d605_O_257)


**MIBI Runs used for TDS:**

20180426\_1513\_1514: 1513\_Bottom\_R1C1\_Tonsil: Point14

20180417\_1513\_1514 1514\_Top\_R2C5\_Lung: Point12

Mouse run: 20200824\_4517: FOV5 (R3C2\_Spleen\_Top)

**Approved by:**

Name	Signature	Date
Monirath Hav		09/23/20
Jason Ptacek	J ason Ptacek	7/28/20
Jessica Finn		