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DATA SHEET

# Mouse Anti-ROS [MD256]: MC0469, MC0469RTU7

**Intended Use:** For Research Use Only

**Description:** ROS or ROS1, a 263914 Da cell membrane tyrosine kinase expressed in brain, and an orphan receptor tyrosine kinase of the insulin receptor family, was initially identified as a homolog of v-ros from the UR2 sarcoma virus. ROS consists of a large extracellular domain that is composed of six fibronectin repeats, a transmembrane domain, and an intracellular kinase domain. While the function of ROS is undefined, it has been shown to play an important role in differentiation of epididymal epithet. The first oncogenic fusion of ROS, FIG-ROS1, was initially identified by research studies in glioblast, and subsequent studies have found this fusion in cholangiocarcinoa, ovarian can and non-small cell lung cancer (NSCLC). Investigators have found additional oncogenic ROS fusion proteins in NSCLC (at a frequency of ~1.6%), where the ROS1 kinase domain is fused to the amino-terminal region of a number of different proteins, including CD74 and SLC34A. ROS fusion proteins activate the SHP-2 phosphatase, PI3K/Akt/mTOR, Erk, and Stat3 pathway.

**Specifications**

| | |
|---|---|
| Clone: | MD256 |
| Source: | Mouse |
| Isotype: | IgG2a |
| Reactivity: | Human |
| Immunogen: | Recombinant protein to human ROS1 |
| Localization: | Membrane |
| Formulation: | Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3) |
| Storage: | Store at 2°- 8°C |
| Applications: | IHC |

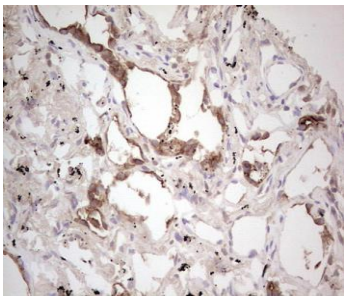
Package:

| Description | Catalog No. | Size |
|---|---|---|
| ROS Concentrated | MC0469 | 1 ml |
| ROS Prediluted | MC0469RTU7 | 7 ml |

**IHC Procedure***

| | |
|---|---|
| Positive Control Tissue: | HCC, lung carcinoma |
| Concentrated Dilution: | 50-200 |
| Pretreatment: | Tris EDTA pH 9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C |
| Incubation Time and Temp: | 30-60 minutes @ RT |
| Detection: | Refer to the detection system manual |

* Result should be confirmed by an established diagnostic procedure.



FFPE human lung carcinoma tissue stained with anti-ROS using DAB

**References:**


1. CD74-ROS1 fusion transcripts in resected non-small cell lung carcinoma. Matsuura S., et al. Oncol Rep. Oct;30(4):1675-80, 2013.
2. Analysis of receptor tyrosine kinase ROS1-positive tumors in non-small cell lung cancer: identification of a FIG-ROS1 fusion. Rimkunas VM., et al. Clin Cancer Res. Aug 15;18(16):4449-57, 2012.





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