

**Mouse Anti-ATRX/RAD54 [39f]: MC0145, MC0145RTU7**

**Intended Use:** For Research Use Only

**Description:** ATRX is a member of the Snf2 family of helicase/ATPases, which contribute to the remodeling of the nucleosome structure in an ATP-dependent manner, and facilitate the initiation of transcription and replication. Structurally, ATRX contains a PHD zinc finger motif. ATRX is regulated throughout the cell cycle where it is differentially distributed within the nucleus. During interphase, ATRX predominately associates with the nuclear matrix, while during mitosis, ATRX localizes with condensed chromatin. At the onset of M phase, phosphorylation rapidly induces this redistribution of ATRX to the short arms of human acrocentric chromosomes, where it then specifically complexes with heterochromatin protein 1  $\alpha$  to mediate chromosomal segregation. Mutations in the ATRX gene correlate with a high incidence of severe X-linked form of syndromal mental retardation associated with  $\alpha$  thalassaemia or ATRX syndrome. Distinct histological and molecular characteristics of adult diffuse gliomas with and without ATRX immunoreactivity indicate the utility of ATRX immunohistochemistry in diagnostic practice.

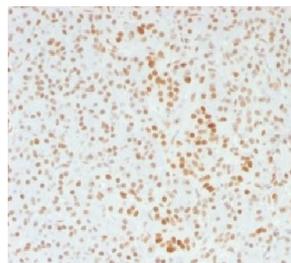
**Specifications**

Clone: 39f  
 Source: Mouse  
 Isotype: IgG1k  
 Reactivity: Human  
 Immunogen: Recombinant full-length human ATRX protein  
 Localization: Nucleus  
 Formulation: Antibody in PBS pH 7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC  
 Package:

Description	Catalog No.	Size
ATRX/RAD54 Concentrated	MC0145	1 ml
ATRX/RAD54 Prediluted	MC0145RTU7	7 ml

**IHC Procedure\***

Positive Control Tissue: Human brain glioma, fallopian tube, kidney, prostate, stomach, colorectal cancer, cerebellum and hippocampus tissue  
 Concentrated Dilution: 50-200  
 Pretreatment: Tris EDTA pH9.0 15 minutes using Pressure Cooker, or 30-60 minutes using 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 pancreas stained with anti-ATRX/RAD54 using DAB

**References:**

1. ATRX promotes gene expression by facilitating transcriptional elongation through guanine-rich coding regions. Levy, M.A., et al. Hum. Mol. Genet. 24: 1824-1835, 2015.
2. Genetic inactivation of ATRX leads to a decrease in the amount of telomeric cohesin and level of telomere transcription in human glioma cells. Eid, R., et al. Mol. Cell. Biol. 35: 2818-2830, 2015.
3. The microRNA-200 family targets multiple non small cell lung cancer prognostic markers in H1299 cells and BEAS-2B cells. Pacurari, M., et al. Int. J. Oncol. 43: 548-560, 2013.

Doc. 100-MC0145  
Rev. A