

**Mouse Anti-Parvalbumin [PARV19]: MC0342, MC0342RTU7**

**Intended Use:** For Research Use Only

**Description:** Parvalbumin is a 12 kDa calcium-binding protein that modulates intracellular calcium dynamics. Capable of binding two calcium ions, parvalbumin functions as a relaxing factor that shuttles calcium ions from other calcium-binding proteins to buffer intracellular calcium. First detected in glycolytic skeletal muscle fibers, it is also expressed in the axons and terminals of cerebellar interneurons of the cerebellum, horizontal and ganglion cells of the retina, and distal convoluted tubules and connecting tubules in the kidney. In cancer, parvalbumin has been suggested as a useful marker for distinguishing primary and metastatic chromophobe renal cell carcinoma and renal oncocytoma from papillary renal cell and clear cell carcinomas. It stains 80-100% of chromophobe carcinomas and 69-82% of oncocytomas, compared to 0-8% clear cell and 0-31% papillary renal cell carcinomas. Sensitivity and specificity was determined as 80% and 89%, respectively.

**Specifications:**

Clone: PARV19  
 Source: Mouse  
 Isotype: IgG1  
 Reactivity: Human, bovine, canine, fish, feline, frog, goat, mouse, pig, rat, rabbit  
 Immunogen: Parvalbumin purified from frog muscle  
 Localization: Nucleus  
 Formulation: Ascites containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C.  
 Applications: IHC, ICC, WB  
 Package:

Description	Catalog No.	Size
Parvalbumin Concentrated	MC0342	1 ml
Parvalbumin Prediluted	MC0342RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Tonsil, cerebellum  
 Concentrated Dilution: 50-200  
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 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 rat cerebellum sections stained with anti-Parvalbumin

**References:**

1. Preferential inactivation of Scn1a in parvalbumin interneurons increases seizure susceptibility. Dutton SB, et al. Neurobiol Dis. Jan;49:211-20, 2013.
2. Parvalbumin in fish skin-derived gelatin: is there a risk for fish allergic consumers? Koppelman SJ, et al. Food Addit Contam Part A Chem Anal Control Expo Risk Assess. 29(9):1347-55, 2012.
3. Identification of sole parvalbumin as a major allergen: study of cross-reactivity between parvalbumins in a Spanish fish-allergic population. Perez-Gordo M, et al. Clin Exp Allergy. May;41(5):750-8, 2011.
4. Effects of estrogen via estrogen receptors on parvalbumin levels in cardiac myocytes of ovariectomized rats. Wirakiat W, et al. Acta Histochem. Jan;114(1):46-54, 2012.

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