

Mouse Monoclonal Antibody (CAL2) Against All *CALRETICULIN (CALR)* Mutations

Product Information

Catalog No.:	DIA-CAL-250 (250µl, lyophilized) DIA-CAL-100 (100µl, lyophilized)	Staining pattern:	Cytoplasmic staining of megakaryocytes harboring <i>CALR</i> mutation. The CAL2 IHC assay indicates absence of <i>CALR</i> mutation when all megakaryocytes remain unlabeled.
Clone:	CAL2		
Isotype:	Mouse IgG2a		
Immunogen:	C-neotermus of mutated CALR.	Positive control:	Megakaryocytes from <i>CALR</i> mutated PMNs
Specificity:	Human CALR protein expressed by all types of Exon 9 <i>CALR</i> mutations (deletion/insertion in 19p 13.3-13.2 of)	Negative control:	Megakaryocytes of reactive bone marrow specimens or <i>JAK2</i> mutated PV
Application:	Immunohistochemistry (IHC) for formalin-fixed paraffin-embedded (FFPE) tissue with or without EDTA-decalcification Other fixatives (e.g. B5, Bouin) not tested.	Safety notes:	The reconstituted liquid contains 0.05% sodium azide as a preservative. Avoid skin and eye contact, inhalation and ingestion.
Physical state:	Lyophilized powder	References:	1. Mózes R et al. Calreticulin mutation specific CAL2 immunohistochemistry accurately identifies rare calreticulin mutations in myeloproliferative neoplasms. <i>Pathology</i> , 2018, doi: 10.1016/j.pathol.2018.11.007 2. Andrici J et al. Mutation specific immunohistochemistry is highly specific for the presence of calreticulin mutations in myeloproliferative neoplasms. <i>Pathology</i> 484: 319-24, 2016. 3. Nomani L et al. CAL2 Immunohistochemical Staining Accurately Identifies CALR Mutations in Myeloproliferative Neoplasms. <i>Am J Clin Pathol</i> . 1464: 431-438, 2016. 4. Stein, H et al. A new monoclonal antibody (CAL2) detects CALRETICULIN mutations in formalin-fixed and paraffin embedded bone marrow sections. <i>Leukemia</i> 301: 131-135. 2015. 5. Nangalia J et al. Somatic CALR Mutations in Myeloproliferative Neoplasms with Nonmutated JAK2. <i>N Engl J Med</i> 369(25): 2391-2405, 2013 6. Klampfl T et al. Somatic Mutations of Calreticulin in Myeloproliferative Neoplasms. <i>N Engl J Med</i> 369(25): 2379-2390, 2013.
Reagent provided:	Antibody purified from culture supernatant in PBS with 2% BSA, 0.05% NaN3, pH 7.4.		
Storage and stability:	Store reconstituted liquid for several weeks at 2-8 °C. For long term storage freeze at -20°C or -80°C. Stable for at least one year at -20°C. Avoid repeated freeze/thaw cycles.		
Instructions for use:	Reconstitute DIA-CAL-250 with 250µl and DIA-CAL-100 with 100µl sterile distilled water followed by gentle shaking for 10 minutes. Pre-treat the deparaffinized sections with the heat induced epitope retrieval (HIER) technique; recommended is to heat the sections in citrate buffer pH 6.0 in a pressure cooker for 10 minutes. Other HIER techniques are also applicable. The sections treated by HIER can be processed by all standard IHC protocols. The CAL2 antibody IHC is suited for using automated platforms.		
Dilution:	1:50-1:100 for IHC* *Important notice effective July 2020: Due to changes in manufacturing process the dilution recommendation changed to 1:50-1:100 (before 1:20-1:50)		
Practical implementation:	CAL2 labels the megakaryocytes in myeloproliferative neoplasms (essential thrombocythaemia (ET) and primary myelofibrosis (PMF) with CALR mutation and enables to distinguish ET and PMF with CALR mutation from polycythemia vera (PV), from CALR mutation negative ET and PMF and from reactive bone marrow.		
General recommendation	Validation of antibody performance/protocol is the responsibility of the end user. Positive/negative controls should be run simultaneously with tissue specimen.		

For research use only. Not for diagnostic or therapeutic use.

