

## Mouse anti-human ALK (Anaplastic Lymphoma Kinase) / p80 Monoclonal Antibody (Clone 5A4)

### REFERENCES AND PRESENTATIONS<sup>1</sup>

- **ready-to-use (ml)**  
MAD-001720QD-3  
MAD-001720QD-7  
MAD-001720QD-12
- **MD-Stainer presentations<sup>2</sup>**  
MAD-001720QD-3/V  
MAD-001720QD/V
- **concentrated**  
MAD-001720Q - 1:50 recommended dilution

### COMPOSITION

Anti-human ALK/p80 mouse monoclonal antibody purified from serum and prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide

**INTENDED USE** : Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting

**CLONE:** 5A4

**Ig ISOTYPE:** mouse IgG1

**IMMUNOGEN:** Recombinant protein corresponding to a region which spans the tyrosine kinase catalytic domain and part of the C-terminus of the NPM-ALK transcript (419-520aa)

**SPECIES REACTIVITY:** In vitro diagnostics in humans. Not tested in other species

### DESCRIPTION AND APPLICATIONS:

This antibody recognizes the hybrid p80<sup>NPM/ALK</sup> chimeric protein of 80kDa, a product of the t (2; 5) (p23; q35) translocation between the anaplastic lymphoma kinase gene and the nucleophosmin gene which is specifically expressed in 40% of Ki-1 lymphoma (anaplastic large cell lymphoma).

**Even if the antibody has been suggested to detect lung adenocarcinomas harbouring rearrangements of the ALK gene, the inferior results obtained with clone 5A4 in comparison with similar other clones does not recommend it for these purpose.**

Other neoplasm and reactive conditions like some diffuse large B cell lymphomas (DLBCL),

neuroblastomas, rare anaplastic carcinomas of the thyroid, kidney, oesophagus, colon and breast, various sarcomas (rare rhabdomyosarcomas, lipogenic tumors, Ewing/PNET sarcomas and leiomyosarcomas) or the inflammatory myofibroblastic tumour might also express the protein not necessary related with the specific translocation.

**IHC POSITIVE CONTROL:** Anaplastic large cell lymphoma

**VISUALIZATION:** Cytoplasmic and/or nuclear

### IHC RECOMMENDED PROCEDURE:

- 4µm thick section should be taken on charged slides; dry overnight at 60°C
- Deparaffinise, rehydrate and HIER (heat induced epitope retrieval) – boil tissue in the Pt Module using Master Diagnóstica Tris-EDTA buffer pH9<sup>3</sup> for 20 min at 95°C. Upon completion rinse with 3-5 changes of distilled or deionised water followed by cooling at RT for 20 min
- Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)
- Primary antibody: incubate for 30 minutes [The antibody dilution (when concentrated) and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]
- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)
- Counterstaining with haematoxylin and final mounting of the slide

**STORAGE AND STABILITY:**  up to 18 months;  stored at 2-8°C. Do not freeze.

### WARNINGS AND PRECAUTIONS:

1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.
2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

<sup>1</sup> These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:

- / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).

- / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).

For different presentations (references / volumes) please contact the supplier.

<sup>2</sup> For Technical specifications for MD-Stainer, please contact your distributor.

<sup>3</sup> Ref: MAD-004070R/D



### SAFETY RECOMMENDATIONS

This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at [www.vitro.bio](http://www.vitro.bio) or can be requested at [regulatory.md@vitro.bio](mailto:regulatory.md@vitro.bio).

### BIBLIOGRAPHY

1. Falini B, et al. ALK expression defines a distinct group of T/Null lymphomas ("ALK lymphomas") with a wide morphological spectrum. *Am J Pathol.* 1998 Sep; 153(3):875-86.
2. Mino-Kenudson M, et al. A novel highly sensitive antibody allows for the routine detection of ALK-rearranged lung adenocarcinomas by standard immunohistochemistry. *Clin Cancer Res.* 2010 Mar 1; 16(5):1561-71.
3. Paik JH, et al. Screening of anaplastic lymphoma kinase rearrangement by immunohistochemistry in non-small cell lung cancer: correlation with fluorescence in situ hybridization. *J Thorac Oncol.* 2011 Mar; 6(3):466-72.
4. Kim H, et al. Detection of ALK gene rearrangement in non-small cell lung cancer: a comparison of fluorescence in situ hybridization and chromogenic in situ hybridization with correlation of ALK protein expression. *J Thorac Oncol.* 2011 Aug; 6(8):1359-66.
5. McLeer-Florin A, et al. Dual IHC and FISH testing for ALK gene rearrangement in lung adenocarcinomas in a routine practice: a French study. *J Thorac Oncol.* 2012 Feb; 7(2):348-54.
6. Tennstedt P, Strobel G, Bölch C, Grob T, Minner S, Masser S, Simon R. Patterns of ALK expression in different human cancer types. *J Clin Pathol.* 2014 Jun;67(6):477-81

