Mismatch Repair Antibody Sampler Kit

HAK21012

Contains Product	Quantity	Applications	Species reactivity	MW(kDa)
MLH1 [HA721325]	20μl	WB,IHC-P	H,M,R	85 kDa
MSH2 [HA601108]	20μl	WB,IF-Cell,IHC-P	H,M,R	105 kDa
MSH6 [HA721164]	20μl	WB,IHC-P,IF-Cell,IF-Tissue	H,M,R	153 kDa
PMS2 [ET1605-1]	20μl	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC	H	96 kDa

Description: Mismatch Repair Antibody Sampler Kit contains multiple trial-sized versions of anti-human antibody clones against MSH6, PMS2, MLH1, and MSH2, specifically selected for their high performance in multiple applications including IHC. They are provided as a sampler panel to allow you to easily evaluate each in your required application.

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Background DNA mismatch repair (MMR) proteins are involved in repairing mistakes that occur during DNA replication and recombination, in addition to repairing some types of DNA damage. Defects in the MMR process due to mutations in MMR genes (MSH6, PMS2, MLH1, MSH2) can result in microsatellite instability (MSI), where a DNA sequence accumulates errors and produces abnormally long or shorter microsatellites. These defects in the MMR pathway have been linked to various human cancers, such as human non-polyposis colon cancer (HNPCC) and Muir-Torre Syndrome (MTS), a subtype of HNPCC.

Database links: UniProt ID: P40692, Q9JK91, P97679, P43246, P43247, P54275, P52701, P54276, P54278

Images

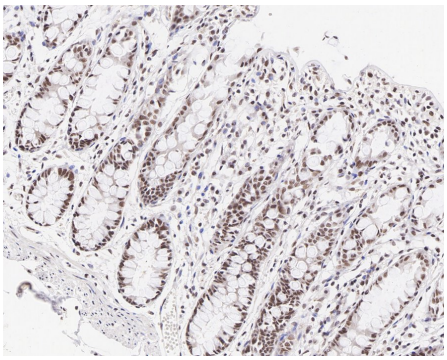

Fig1: Immunohistochemical analysis of paraffin-embedded human colon tissue with Rabbit anti-MLH1 antibody (HA721325) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721325) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

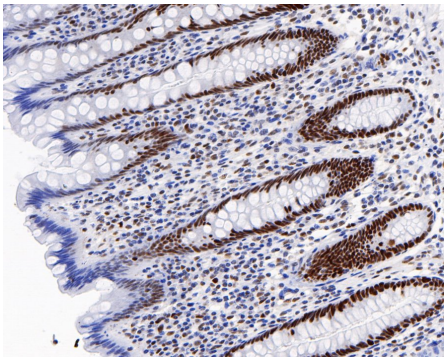

Fig2: Immunohistochemical analysis of paraffin-embedded human appendix tissue with Mouse anti-MSH2 antibody (HA601108) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA601108) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

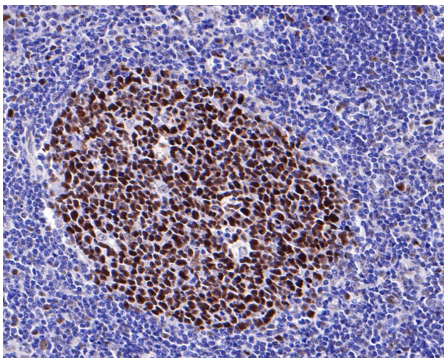

Fig3: Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Rabbit anti-MSH6 antibody (HA721164) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721164) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

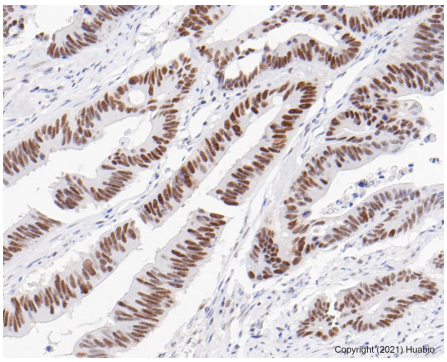

Fig4: Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue using anti-PMS2 antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1605-1, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Modrich, P. (2006) J Biol Chem 281, 30305-9.
2. Kolodner, R.D. and Marsischky, G.T. (1999) Curr Opin Genet Dev 9, 89-96.
3. Pećina-Šlaus, N. et al. (2020) Front Mol Biosci 7, 122.
4. Kok, M. et al. (2019) ESMO Open 4, e000511.
5. Yi, M. et al. (2018) Mol Cancer 17, 129.