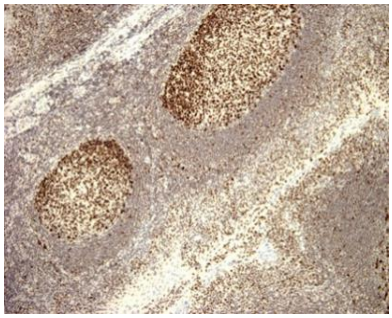
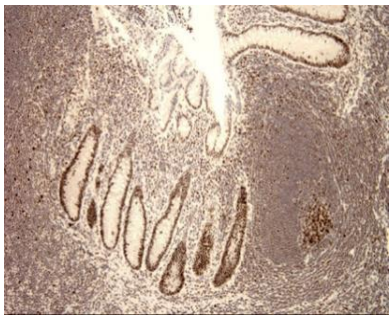
Anti-MLH1, mouse monoclonal (BS29)

BSH-7208-100 (0.1 ml), BSH-7208-1 (1 ml)

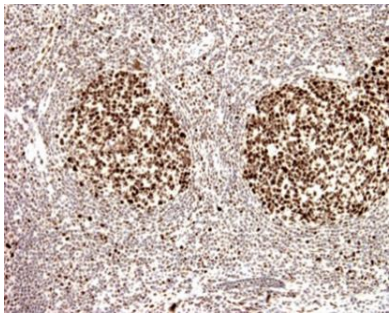
Clonality:	Mouse monoclonal antibody
Clone:	BS29
Application:	IHC-P (1:100 – 1:400)
Species Reactivity:	Human
Control tissues:	Tonsil, colon carcinoma, MLH1 mutated colon carcinoma
Buffer:	TRIS with 0.03% sodium azide, pH 7.2
Storage:	Store at 4°C



Tonsil section has been stained using MLH1 optibody (Clone: BS29) with 1:200 dilution. Germinal center cells have strong cytoplasmic label. Moderate label observed from cells of the mantle zone.



Appendix section has been stained using MLH1 optibody (Clone: BS29) with 1:200 dilution. Germinal center cells as well as enterocytes have strong cytoplasmic label. Moderate label observed from cells of the mantle zone.



Tonsil section has been stained using MLH1 optibody (Clone: BS29) with 1:200 dilution. Germinal center cells have strong cytoplasmic label.

Description

DNA-mismatch repair (MMR), a conserved process that involves correcting errors made during DNA synthesis, is crucial to the maintenance of genomic integrity. Lack of a functional DNA-mismatch repair pathway is a common characteristic of several different types of human cancers, either due to an MMR gene mutation or promoter-methylation gene silencing. Loss of MMR protein expression is associated with a mutated phenotype, microsatellite instability and a predisposition to cancer. In hereditary nonpolyposis colorectal cancer (HNPCC), an autosomal dominant inherited cancer syndrome that signifies a high risk of colorectal and various other types of cancer, the MLH1 gene exhibits a pathogenic mutation. Inactivation of the MLH1 gene causes genome instability and predisposition to cancer.

Protocol

1. Deparaffinize and rehydrate tissue section
2. Wash: aqua dest, 2×5 min
3. Pre-treatment: PT-module HIER pH 9.0 (20min at 98°C)
4. H_2O_2 (concentration 3%), 10 min
5. Wash: PBS or TBS buffer, 2×5 min
6. Primary antibody diluted as recommended, 30 min
7. Wash: PBS or TBS buffer, 2×5 min
8. One step HRP-polymer detection, 30 min
9. Wash: PBS or TBS buffer, 2×5 min
10. DAB Substrate, 8 min
11. Wash: aqua dest, 2×2 min
12. Counterstain, dehydrate and coverslip

Dilution of concentrated antibody depends on the pre-treatment method and detection system used. Above protocol used in Optibodies evaluation and is meant as a reference. Final working dilution and protocol applied needs to be determined by the user always.

December 2023