
ASTE1 Antibody Blocking Peptide

Catalog Number: bs-9297P

Activity: Not tested

Purification: HPLC

Storage: Shipped at 4°C. Stored at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: ASTE1 is a 679 amino acid protein that belongs to the asteroid family. Encoded by a gene that maps to human chromosome 3q22.1, ASTE1 is conserved in chimpanzee, cow, mouse, rat and zebrafish. ASTE1 is strongly linked to tumor-infiltrating lymphocytes in colorectal cancers with microsatellite instability, with lymphocyte density correlating to frameshift mutation presence and frequency within ASTE1. Severe colorectal dysplasia with microsatellite instability also exhibits frameshift mutations within ASTE1, suggesting that ASTE1 mutations occur early during microsatellite instability-induced colorectal carcinogenesis. ASTE1 frameshift mutations may generate a premature stop codon in the last exon that does not result in nonsense-mediated mRNA decay, thereby allowing mutated ASTE1 proteins to be highly expressed and exceptionally immunogenic. Frameshift mutations in ASTE1 are also linked to the manifestation of neoantigens, potentially recognized by T cells, possibly resulting in specific immune responses against specific neoantigens.