Siglec-6

Description

Siglec-6 is a member of the Siglecs family expressed on mast cells, B cells, and, notably, on placental trophoblasts, where it may slow down the human birth process. The expression on these last cells is human-specific. (Brinkman-Van Der linden et al., 2007) Siglec-6 contains a V-set domain, two C2-set domains, and one ITIM domain in the cytoplasmatic tail, thus contributing to negative signalling. (Crocker et al., 2007; Patel et al., 1999)

Little is known about the role of this protein.

Recent evidence showed a higher expression of Siglec-6 in circulating and urinary T cells in patients who have non-muscle-invasive bladder cancer (NMIBC), a disease associated with high mortality and morbidity. The higher expression was also associated with lower survival. These data indicate Siglec-6 as a possible target for treating this kind of cancer. However, such preliminary findings require further studies to confirm its role in regulating CD8+ T-cell function and bladder tumor immune escape leading to tumor progression. (Benmerzoug et al., 2021) Siglec-6 is also considered a possible target for immunotherapy in chronic lymphocytic leukemia (CLL). (Kovalovsky et al., 2021) Finally, overexpression of Siglec-6 has been detected in preterm preeclampsia placenta, characterized by placental abnormalities; however, its role in the disease is not clear yet. (Rumer et al., 2013)

Regarding its affinity, it is a protein able to bind leptin, but no other ligands are known. Besides, no solved structure is available.

Category

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