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Inhibitors, Agonists, Screening Libraries

Galectin

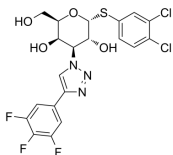
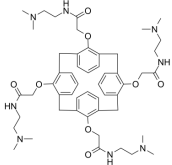
Galectins are a family of proteins that possess β -galactoside-binding properties through their carbohydrate recognition domains (CRDs). Galectins can be secreted from cells by nonclassic pathways to interact with external glycoconjugates and have a variety of activities both extra- and intracellularly, with important implicated roles in immunity, inflammation, and cancer.

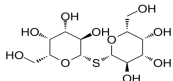
Galectins can be classified according to the CRD features. Galectin-1, -2, -5, -7, -10, -11, -13, and -14 are composed of a CRD and a short N-terminal sequence (prototype). Galectin-4, -6, -8, -9, and -12 have two nonidentical CRDs in tandem with a short linker sequence (tandem-repeat type). Galectin-3 has an exceptional structure, with a CRD and an extended N-terminal domain consisting of glycine/proline-rich repeats and a short N-terminal end (chimera type). Galectin-1 (Gal1), a carbohydrate-binding protein is implicated in cancer cell proliferation, invasion and tumour angiogenesis. Galectin-3 (Gal3) is a β -galactoside binding lectin that is highly expressed in fibrotic tissue of diverse etiologies.

Galectins have emerged as key players in the tumor microenvironment. Galectins are expressed and released by different celltypes, including tumor, stromal, endothelial and immune cells. Galectins critically influence tumor progression by modulating tumor cell migration, invasiveness, angiogenesis and antitumor immune responses. Intracellularly, galectins modulate survival and proliferation and they interact with a variety of signaling pathways. Given these extracellular and intracellular functions and their regulated expression at sites of tumor growth and metastasis, galectins have stimulated great interest as relevant biomarkers and novel targets in cancer therapy.

Galectin Inhibitors

G3-C12	Cat. No.: HY-P1592	G3-C12 TFA	Cat. No.: HY-P1592A
G3-C12 is a galectin-3 binding peptide, with K_d of 88 nM, and shows anticancer activity.	ANTPCGPYTHDCPVKR	G3-C12 (TFA) is a galectin-3 binding peptide, with K_d of 88 nM, and shows anticancer activity.	ANTPCGPYTHDCPVKR (TFA salt)
Purity: 99.44%		Purity: 99.45%	
Clinical Data: No Development Reported		Clinical Data: No Development Reported	
Size: 1 mg, 5 mg		Size: 1 mg, 5 mg, 10 mg	

GB1107	Cat. No.: HY-114409	OTX008 (Calixarene 0118; PTX008)	Cat. No.: HY-19756
GB1107 is a potent, selective, orally active inhibitor of Galectin-3 (Gal-3) with a K_d of 37 nM for human Galectin-3. GB1107 reduces human and mouse lung adenocarcinoma growth and blocks metastasis in the syngeneic model.		OTX008 is a selective inhibitor of galectin-1.	
Purity: 99.73%		Purity: 99.36%	
Clinical Data: No Development Reported		Clinical Data: Phase 1	
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg		Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg	

Thiodigalactoside (TDG)	Cat. No.: HY-130208
Thiodigalactoside (TDG) is an orally active and potent galectin (GAL) inhibitor with K_d values of 24 μ M, 49 μ M for GAL1 and GAL3, respectively. Thiodigalactoside, a non-metabolizable disaccharide, has anti-inflammatory and anti-cancer activity.	
Purity: >98%	
Clinical Data: No Development Reported	
Size: 25 mg	