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Furosemide/Digoxin Topical Gel CLS003

National Cancer Institute

Source

National Cancer Institute. *Furosemide/Digoxin Topical Gel CLS003*. NCI Thesaurus. Code C162192.

A topical ionic contra-viral therapy (ICVT) gel-based formulation that combines furosemide, a sulfamoylanthranilic acid derivative and loop diuretic, and digoxin, a cardiac glycoside, with potential antiviral activity. Upon topical administration, furosemide interacts with the cell membrane ion co-transporter, Na⁺-K⁺-2Cl⁻-co-transporter-1 (NKCC1; SLC12A2) and digoxin reversibly inhibits the sodium/potassium-transporting ATPase, leading to a decrease in potassium influx. This may prevent the replication of certain DNA viruses including human papillomavirus (HPV), that rely on potassium for replication.