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Basolateral Sorting Signal

National Cancer Institute

Source

National Cancer Institute. *Basolateral Sorting Signal*. NCI Thesaurus. Code C14083.

The polymeric immunoglobulin receptor is a model system to study protein traffic in epithelial cells. This receptor travels first to the basolateral surface where it can bind polymeric IgA or IgM. The receptor is then endocytosed and delivered to endosomes. The receptor is sorted into transcytotic vesicles which are exocytosed at the apical surface. The 103 amino acid cytoplasmic domain of the receptor contains several sorting signals. The 17 residues closest to the membrane are an autonomous signal for basolateral sorting. For endocytosis there are two signals, both of which contain tyrosines. Finally, transcytosis is signaled by serine phosphorylation. (From PubMed PMID1813030 and NCI)