

## **Molecular interactions of Munc18c and Syntaxin4**

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Vesicle fusion is mediated by SNARE (soluble N-ethylmaleimide-sensitive factor attachment protein receptors) proteins. Membrane fusion is brought about by the interaction of the t-SNAREs (SNAP23 and Syntaxin4) with the v-SNARE (VAMP2) to form the SNARE ternary complex (1). The t-SNAREs and the v-SNAREs are found on opposing membranes. Of particular interest to this study are the interactions that Syntaxin4 makes with Munc18c. Munc18c is a member of the Sec1/Munc18 (SM) protein family, a group of regulatory proteins that modulate vesicle fusion. It has been observed that the N-terminus of Syntaxin4 interacts with Munc18c (2). Syntaxin4 has also shown an ability to bind to metal ions. Analysis of these SNARE protein interactions and preliminary crystallization results of Munc18c/Syntaxin4 peptide will be presented.

(1) 1. Bennett M.K and Scheller R.H. PNAS 90, 2559-2563 (1993)

(2) 2. Latham C.F. et.al. Traffic 7, 1408-1419 (2006)