

The specificity of the miRNA m_k for the process p_j :

$$S_{m_k, p_j} = \frac{|G_{m_k, p_j}|}{|G_{m_k}|} \cdot \frac{\sum_{g_i \in G_{m_k, p_j}} S_{g_i, p_j}}{|G_{m_k, p_j}|} = \frac{\sum_{g_i \in G_{m_k, p_j}} S_{g_i, p_j}}{|G_{m_k}|}$$

where G_{m_k, p_j} is the set of target genes for miRNA m_k involved in the process p_j , and G_{m_k} is the set of all the target genes for m_k .

S_{g_i, p_j} is the specificity of the gene g_i with the process p_j :

$$S_{g_i, p_j} = \frac{1}{|P_{g_i}| \cdot |G_{p_j}|}$$

where P_{g_i} is the set of processes in which the gene g_i is involved and G_{p_j} is the set of genes involved in the process p_j .