

SpaC homologous proteins in CMNR <sup>1</sup> microorganisms				SpaC homologous proteins in mammals <sup>2</sup>			
Organism	Protein	Identity (%)	E-value	Organism	Protein	Identity (%)	E-value
<i>C. pseudotuberculosis</i> 1002	Uncharacterized protein	99	0.0	No significant similarity found.			
<i>C. pseudotuberculosis</i> C231	Uncharacterized protein	100	0.0				
<i>C. diphtheriae</i> HC02	Putative fimbrial subunit	27	5x10 <sup>-15</sup>				
NanH homologous proteins in CMNR <sup>1</sup> microorganisms				NanH homologous proteins in mammals <sup>2</sup>			
Organism	Protein	Identity (%)	E-value	Organism	Protein	Identity (%)	E-value
<i>C. pseudotuberculosis</i> 1002	NanH	100	0.0	<i>Bos taurus</i>	Plectin	30%	1x10 <sup>-8</sup>
<i>C. pseudotuberculosis</i> C231	NanH	100	0.0	<i>Mus musculus</i>	Plectin	30%	2x10 <sup>-8</sup>
<i>C. diphtheriae</i> HC02	NanH	50	0.0	<i>Homo sapiens</i>	Plectin	30%	2x10 <sup>-9</sup>
<i>C. glutamicum</i> ATCC 14067	Uncharacterized protein	36	1.0x10 <sup>-56</sup>	<i>Homo sapiens</i>	NEU <sup>3</sup>	27%	2x10 <sup>-7</sup>

**Additional file 2:** NCBI BLASTP searches were performed in UniprotKB database. <sup>1</sup>*Corynebacterium, Mycobacterium, Nocardia,*

*Rhodococcus;* <sup>2</sup>*Ovis, Bos, Equus and Mus* genera, *Homo sapiens;* <sup>3</sup>Sialidase 1 (lysosomal sialidase).