SUPPLEMENTAL MATERIAL

SUPPLEMENTAL FIGURE LEGENDS

Supplemental Figure 1. Domain structure of Stbd1. The architecture of Stbd1 based on primary sequence is indicated, with the N-terminal hydrophobic segment, a putative leucine zipper and the N-terminal CBM20 domain. Shown also is W293, a residue conserved throughout the Stbd1 family and also present in the laforin CBM20 domain. The truncated forms of Stbd1 shown were identified in a yeast two-hybrid screen using a portion of Stbd1 itself as bait; the relative β-galactosidase activities are indicated alongside the catch.

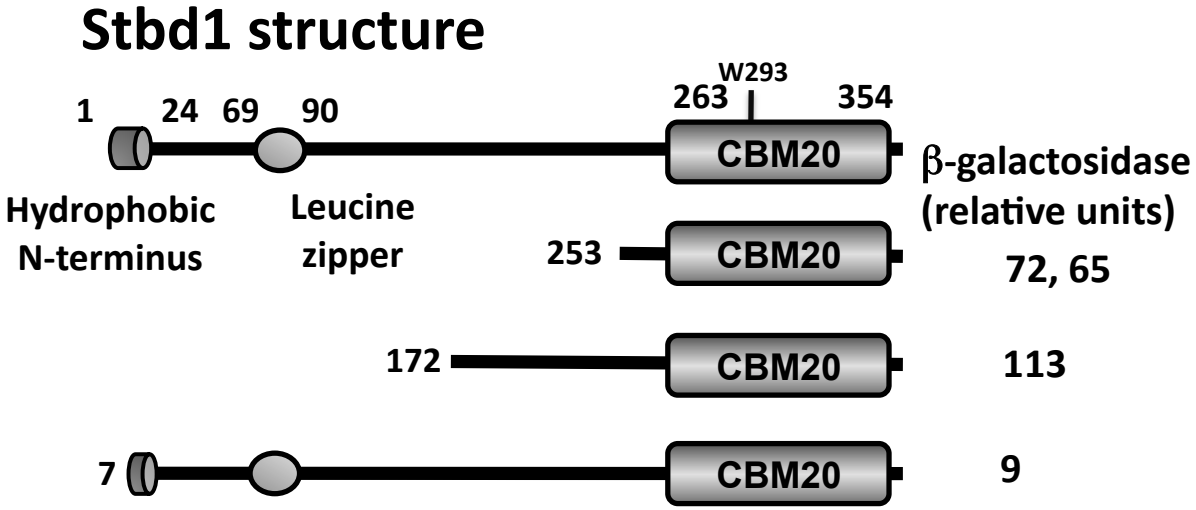
Supplemental Figure 2. Sequence alignment of mammalian Stbd1s. Sequences were aligned with the Clustal algorithm, with darker shading denoting greater degrees of conservation among species. The orange box indicates the highly conserved hydrophobic N-terminal twenty four residues. The purple box encloses the putative leucine zipper motif. The red box encloses the conserved CBM20 domain.

Supplemental Figure 3. Subcellular localization of endogenous Stbd1 with respect to organelle markers in FL83B cells and Rat1Neo5 fibroblasts. FL83B cells (A) or Rat1Neo5 (B) cells were immunostained with antibodies directed towards mStbd1 (middle panels) and antibodies towards LAMP1, a lysosomal marker (lower left panel), HDEL, as an endoplasmic reticulum marker (middle panel), or against β-tubulin as a microtubule marker (right panel). The upper panels show merges of the images, with Stbd1 (red) and the corresponding organelle marker (green), with nuclei stained with Hoechst (blue). The scale bars are 20 μm.

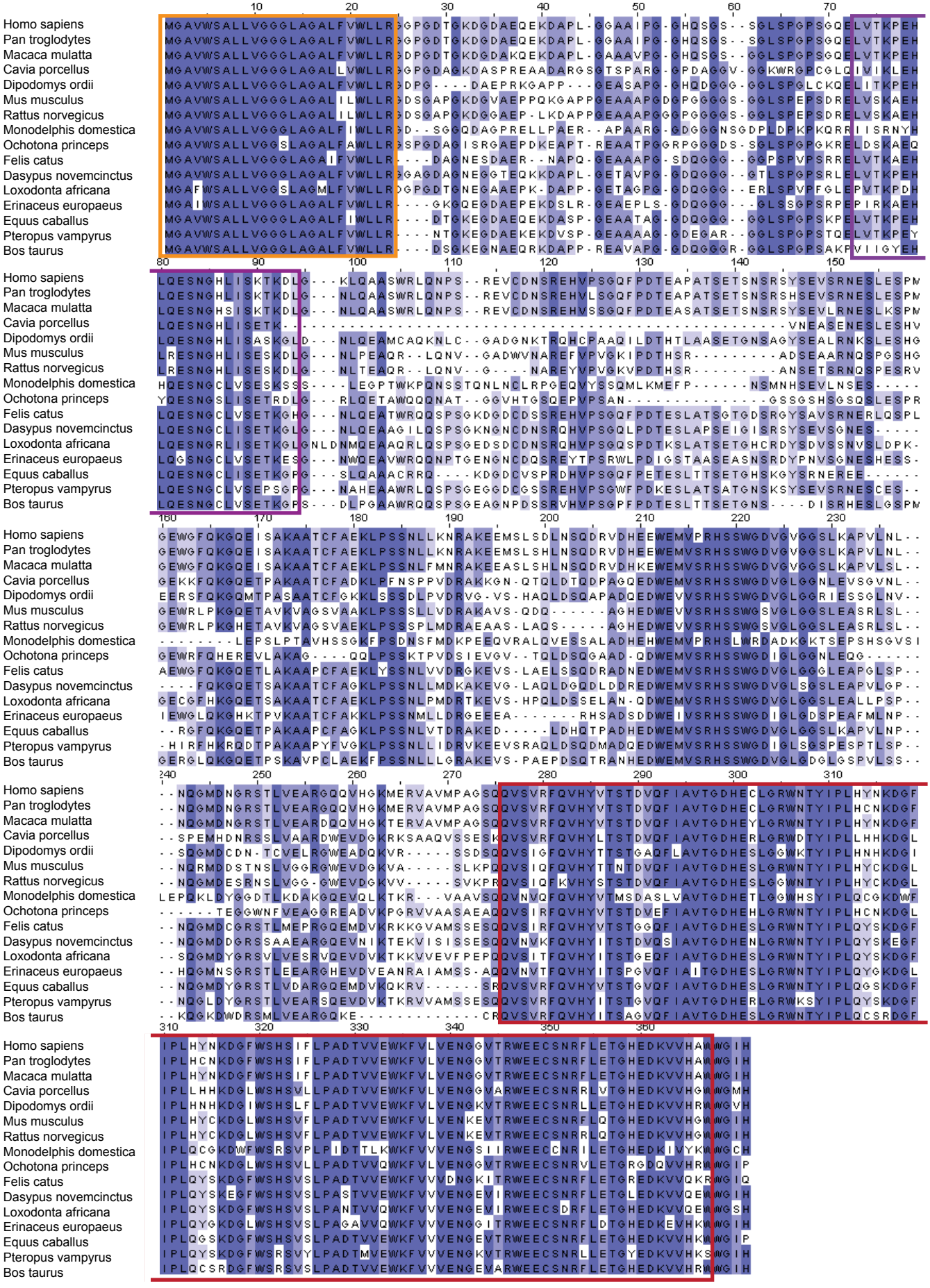
Supplemental Figure 4. Subcellular localization of Stbd1 over-expressed in COS M9 cells with respect to organelle markers. Cells overexpressing full-length hStbd1 were immunostained with antibodies directed towards mStbd1 (middle

panels) and antibodies towards LAMP1, a lysosomal marker (A, lower panel), towards HDEL, as an endoplasmic reticulum marker (B, lower panel), towards syntaxin 6 as a Golgi marker (C, lower panel) or against β-tubulin as a microtubule marker (D, lower panel). The upper panels show merges of the images, with Stbd1 (red) and the corresponding organelle marker (green), with nuclei stained with Hoechst (blue). The scale bars are 20 μm.

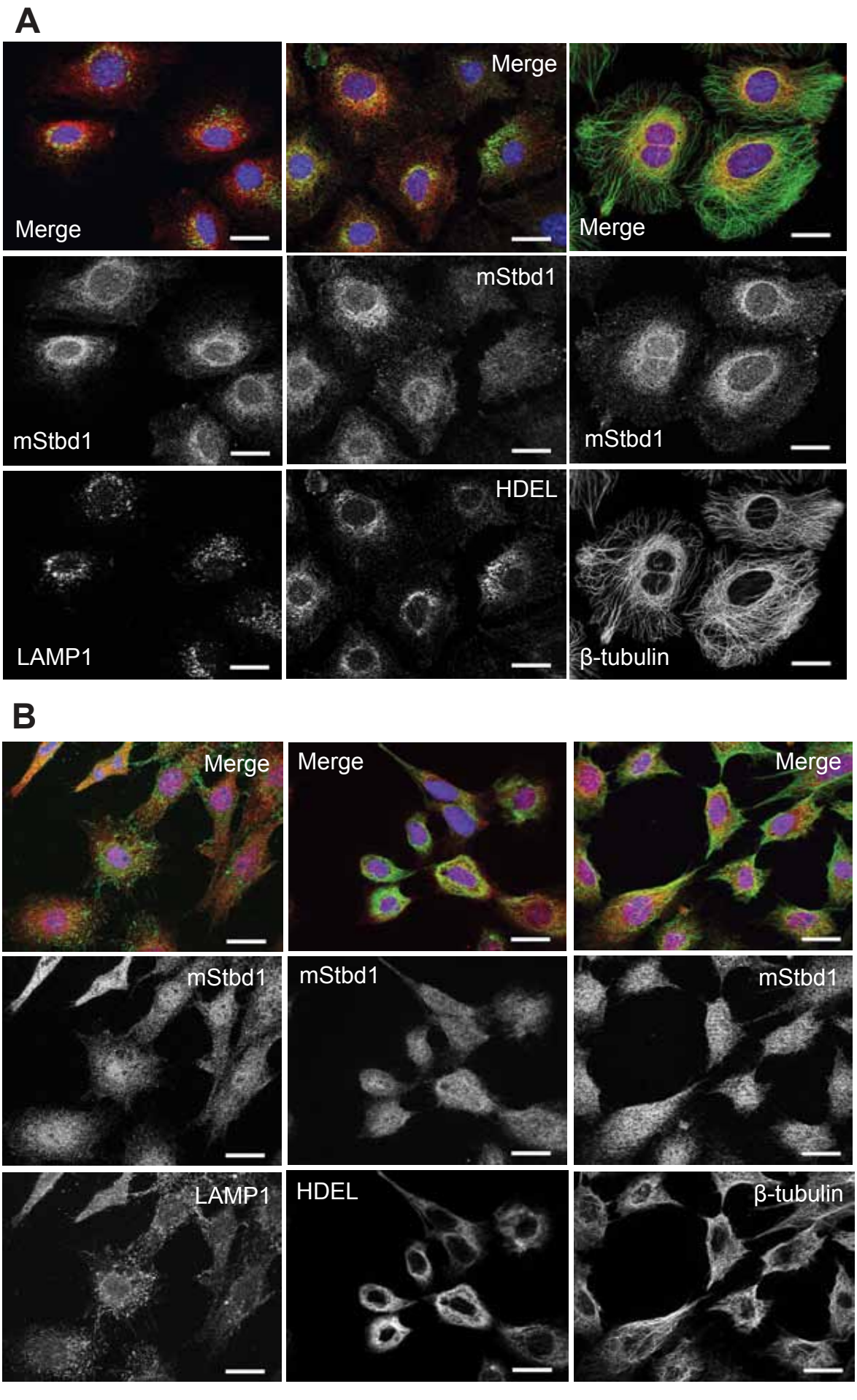
Supplemental Figure 1



Supplemental Figure 2.



Suplemental Figure 3.



Supplemental Figure 4.