



**Figure S1 Coexpression of bPGC with the cyclic nucleotide-gated cation channel TAX-2/TAX-4 in body wall muscle cells results in muscle contraction within one second upon exposure to blue light (n=10 animals).** bPGC(K265D) contains a point mutation that abolishes guanylyl cyclase activity. Animals coexpressing bPGC(K265D) with TAX-2/TAX-4 did not contract to the same extent (n=12 animals). Blue box denotes exposure to blue light.