

Table 2. Phosphoprotein Signature of Diacetyl Injury to Multiciliated Cells^a

primary protein name	protein description	no. of unique phospho-peptides	in protein signature?
MAP1A_HUMAN	microtubule-associated protein 1A	18	Y
RSH4A_HUMAN	radial spoke head protein 4 homologue A	13	Y
K121L_HUMAN	uncharacterized protein KIAA1211-like	9	
CA173_HUMAN	uncharacterized protein C1orf173	8	Y
MAP1B_HUMAN	microtubule-associated protein 1B	7	
CA087_HUMAN	uncharacterized protein C1orf87	5	Y
CG057_HUMAN	uncharacterized protein C7orf57	5	
CROCC_HUMAN	rootletin	5	Y
MIEAP_HUMAN	mitochondria-eating protein	4	Y
TP53B_HUMAN	tumor suppressor p53-binding protein 1 ^b	4	Y
CC151_HUMAN	coiled-coil domain-containing protein 151	3	
CCD13_HUMAN	coiled-coil domain-containing protein 13	3	
CCD19_HUMAN	coiled-coil domain-containing protein 19, mitochondrial	3	
CROL3_HUMAN	putative ciliary rootlet coiled-coil protein-like 3 protein	3	Y
GA2L2_HUMAN	GAS2-like protein 2	3	
IDLC_HUMAN	axonemal dynein light intermediate polypeptide 1	3	Y
MLF1_HUMAN	myeloid leukemia factor 1	3	
ODF3B_HUMAN	outer dense fiber protein 3B	3	Y
SPAT6_HUMAN	spermatogenesis-associated protein 6	3	
SYNE1_HUMAN	nesprin-1	3	
CE164_HUMAN	centrosomal protein of 164 kDa	2	
CH047_HUMAN	uncharacterized protein C8orf47	2	
CP110_HUMAN	centriolar coiled-coil protein of 110 kDa	2	
FBXW9_HUMAN	F-box/WD repeat-containing protein 9	2	Y
INP5E_HUMAN	72 kDa inositol polyphosphate 5-phosphatase	2	

primary protein name	protein description	no. of unique phospho-peptides	in protein signature?
KI21A_HUMAN	kinesin-like protein KIF21A	2	
KIF19_HUMAN	kinesin-like protein KIF19	2	
KTU_HUMAN	protein kintoun	2	
LCA5_HUMAN	lebercilin	2	
MARE3_HUMAN	microtubule-associated protein RP/EB family member 3	2	
SAMH1_HUMAN	SAM domain and HD domain-containing protein 1 ^b	2	Y
TMC5_HUMAN	transmembrane channel-like 2 protein 5		
TPPP_HUMAN	tubulin polymerization-promoting protein	2	

aPhosphoproteins ranked by number of unique phosphopeptides with ~5-fold or greater in DA- versus PBS-treated HBECs (CV < 30% for replicate injections of QC pool; $p < 0.1$, paired t test w/FDR correction) and localization to cytoplasm/membranes of ciliated cells of human bronchi by the Human Protein Atlas (<http://www.proteinatlas.org>).

bProteins with nuclear localization.