

DATA DICTIONARY

Field Name	Field Contents
HBEpC	Human bronchial epithelial cells - cells derived from the human lung tissues. The bronchial epithelium is a complex structure involving goblet, ciliated, and basal cells .
SAEpC	Small airway epithelial cells - cells derived from the human lung tissues.
H1N1(WSN)	Influenza virus A/ WSN/33 virus strain derived from the WS/33 that does not require trypsin.
H9N1 (1P10)	Influenza virus A is a aerosol forming influenza virus
H9N1(1WF10)	Influenza virus A is non-aerosol forming influenza virus
RT-PCR	Real time Polymerase chain reaction used for the detection of RNA.
PBS	Phosphate buffer pH 7
MOI	Multiplicity of infection (MOI) is refers to the number of virions that are added per cell during infection
Ct	Cycle threshold values, the number of cycles required for the fluorescent signal to cross the threshold.
Pg/ml	Picogram/milliliter; concentration of specific protein per volume of liquid.
NGS	Next generation sequencing NGS can be used to sequence entire genomes or constrained to specific areas of interest.
AGO	Argonaute-immunoprecipitation - Co-immunoprecipitation of AGO proteins with associated RNAs using argonaute 1, 2, 3, antibodies
ISO	Immunoprecipitation using iso-antibody
RIPA	Radioimmunoprecipitation assay buffer used for the protein lysis
SDS-PAGE	10% SDS-polyacrylamide gels for the separation of proteins
Fold Change	It is a measure describing how much a quantity changes between control and a treatment group.
Transfection	The process of artificially introducing nucleic acids (DNA or RNA) into cells, utilizing lipofexamine (lipid mediated). Such introductions of foreign nucleic acid using various chemical, biological, or physical methods can result in a change of the properties of the cell, allowing the study of gene function and protein expression in the context of the cell.
Gene expression	Transfection is performed to express a protein of interest in cultured cells.
microRNA	A microRNA (miRNA) is a small single-stranded non-coding RNA molecule (containing about 22 nucleotides).
Mock	Mock infected cells
Power analysis	$p = 0.01$), Number of samples 95% confidence
C1	Control mock infected 0 to 8 h, experiment in duplicate done on day1
C2	Control mock infected 0 to 8 h, experiment in duplicate done on day2
C3	Control mock infected 0 to 8 h, experiment in duplicate done on day3
T1	Cells infected with influenza virus H1N1 or H9N1, experiment done in duplicate 0 to 8h on day 1
T2	Cells infected with influenza virus H1N1 or H9N1, experiment done in duplicate 0 to 8h on day 2

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T3	Cells infected with influenza virus H1N1 or H9N1, experiment done in duplicate 0 to 8h on day 3
SCR-Mimic	Scrambled control mimic treated HBEpCs showing gene expression in fold change
Mimic put-34	Mimic sequences of putative miRNA-34 treated HBEpCs showing gene expression in fold change
SCR-Inhibitor	Scrambled control inhibitor treated HBEpCs showing gene expression in fold change
Inhibitor put-34	Inhibitor sequences of putative miRNA-34 treated HBEpCs showing gene expression in fold change
WSN-1	Influenza virus H1N1 sample 1
WSN-2	Influenza virus H1N1 sample 2
WSN-3	Influenza virus H1N1 sample 3
ND	Not detected
IP10-1	Influenza virus H9N1 (1P10) sample 1
IP10-2	Influenza virus H9N1 (1P10) sample 2
IP10-3	Influenza virus H9N1 (1P10) sample 3
Mock-1	Mock infected control sample 1
Mock-2	Mock infected control sample 2
Mock-3	Mock infected control sample 3
Cq	quantitation cycle, basic result of a qPCR
dCq	Normalized_dCq_values (normalizer assays mean Cq – assay Cq (sample))
GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
HPRT1	Hypoxanthine phosphoribosyltransferase 1
GUSB	Glucuronidase Beta
ACTB	Actin, beta
B2M	Beta-2-microglobulin
RPLP0	Ribosomal Protein Lateral Stalk Subunit P0
HMBS	Hydroxymethylbilane Synthase
TBP	TATA box binding protein
PGK1	Phosphoglycerate Kinase 1
UBC	Ubiquitin C
PPIA	Peptidylprolyl Isomerase A
AR	Androgen receptor
ARNT	Aryl hydrocarbon receptor nuclear translocator
ATF1	Activating transcription factor 1
ATF2	Activating transcription factor 2
ATF3	Activating transcription factor 3
ATF4	Activating transcription factor 4 (tax-responsive enhancer element B67)
CEBPA	CCAAT/enhancer binding protein (C/EBP), alpha
CEBPB	CCAAT/enhancer binding protein (C/EBP), beta
CEBPG	CCAAT/enhancer binding protein (C/EBP), gamma
CREB1	CAMP responsive element binding protein 1

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CREBBP	CREB binding protein
CTNNB1	Catenin (cadherin-associated protein), beta 1, 88kDa
DR1	Down-regulator of transcription 1, TBP-binding (negative cofactor 2)
E2F1	E2F transcription factor 1
E2F6	E2F transcription factor 6
EGR1	Early growth response 1
ELK1	ELK1, member of ETS oncogene family
ESR1	Estrogen receptor 1
ETS1	V-ets erythroblastosis virus E26 oncogene homolog 1 (avian)
ETS2	V-Ets erythroblastosis virus E26 oncogene homolog 2 (avian)
FOS	Fos Proto-Oncogene, AP-1 Transcription Factor Subunit
FOXA2	Forkhead box A2
FOXO1	Forkhead box O1
GATA1	GATA binding protein 1 (globin transcription factor 1)
GATA2	GATA binding protein 2
GATA3	GATA binding protein 3
GTF2B	General transcription factor IIB
GTF2F1	General transcription factor IIF, polypeptide 1, 74kDa
HAND1	Heart and neural crest derivatives expressed 1
HAND2	Heart and neural crest derivatives expressed 2
HDAC1	Histone deacetylase 1
HIF1A	Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor
HNF4A	Hepatocyte nuclear factor 4, alpha
HOXA5	Homeobox A5
HSF1	Heat shock transcription factor 1
ID1	Inhibitor of DNA binding 1, dominant negative helix-loop-helix protein
IRF1	Interferon regulatory factor 1
JUN	Jun proto-oncogene
JUNB	Jun B proto-oncogene
JUND	Jun D proto-oncogene
MAX	MYC associated factor X
MEF2A	Myocyte enhancer factor 2A
MEF2B	Myocyte enhancer factor 2B
MEF2C	Myocyte enhancer factor 2C
MYB	V-myb myeloblastosis viral oncogene homolog (avian)
MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
MYF5	Myogenic factor 5
MYOD1	Myogenic differentiation 1
NFAT5	Nuclear factor of activated T-cells 5, tonicity-responsive
NFATC1	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 1

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NFATC2	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2
NFATC3	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3
NFATC4	Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 4
NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
NFYB	Nuclear transcription factor Y, beta
NR3C1	Nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)
PAX6	Paired box 6
POU2AF1	POU class 2 associating factor 1
PPARA	Peroxisome proliferator-activated receptor alpha
PPARG	Peroxisome proliferator-activated receptor gamma
RB1	Retinoblastoma 1
REL	REL V-rel reticuloendotheliosis viral oncogene homolog
RELA	V-rel reticuloendotheliosis viral oncogene homolog A
RELB	RELB V-rel reticuloendotheliosis viral oncogene homolog B
SMAD1	SMAD family member 1
SMAD4	SMAD family member 4
SMAD5	SMAD family member 5
SMAD9	SMAD family member 9
SP1	Sp1 transcription factor
SP3	Sp3 transcription factor
STAT1	Signal transducer and activator of transcription 1, 91kDa
STAT2	Signal transducer and activator of transcription 2, 113kDa
STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)
STAT4	Signal transducer and activator of transcription 4
STAT5A	Signal transducer and activator of transcription 5A
STAT5B	Signal transducer and activator of transcription 5B
STAT6	STAT6 Signal transducer and activator of transcription 6
TBP	TATA box binding protein
HNF1A	HNF1 Homeobox A
TCF7L2	Transcription Factor 7 Like 2
TFAP2A	Transcription factor AP-2 alpha (activating enhancer binding protein 2 alpha)
TGIF1	TGFB-induced factor homeobox 1
TP53	Tumor protein p53
YY1	YY1 transcription factor