

Cell Lines

Importance
 1: Required
 2: Required if available
 3: Optional

LINCS Field Name	Related to	Description	Comments	Importance	Centers Provide
CL_Name	canonical	The primary name for the cell line as chosen by LINCS	Should be descriptive and correspond to existing cell line names as much as possible; batch independent name	1	YES
CL_LINCS_ID	canonical	Unique LINCS internal identifier	LINCS internal ID; this is a batch independent ID; canonical cell line ID	1	-
CL_Alternative_Name	canonical	Other relevant names	synonymous or alternative names; but only significantly different names should be captured	2	-
CL_Alternative_ID	canonical	Other relevant IDs for cell lines	CLO or other common IDs referring to the same cell line	2	-
CL_Organism	canonical	Organism of origin; a controlled vocabulary describing the organism from which the cell line was derived (e.g. Homo sapiens, Mus musculus, etc.)	exact NCBI name	1	-
CL_Organ	canonical	Organ of origin; controlled terms describing the organ from which cell line is derived; (e.g. lung, mammary gland etc.)	-	1	-
CL_Tissue	canonical	Tissue of origin; A controlled vocabulary describing the tissue from which the cell line was derived	Some histology information might be provided in this field.	1	-
CL_Cell_Type	canonical	A controlled vocabulary describing the cell type from which a cell line was derived; e.g. epithelial like, fibroblast-like, lymphoblast like, hematopoietic, mesenchymal, neural, etc. This provides information about cell morphology. Also sometimes referred to as cell morphology.	controlled terminology from CL	1	-
CL_Cell_Type_Detail	canonical	Additional description of cell type (histology) that is not available in CL, but may be known from other sources like ATCC	terms from other sources like ATCC; will develop over time	2	-
CL_Donor_Sex	canonical	Describes sex of the organism from which the cell was obtained;	male, female, or genderless; OBI	2	-
CL_Donor_Age	canonical	The age of the donor	numeric number; donor age in years	2	-
CL_Donor_Ethnicity	canonical	For human cells, the ethnicity of the donor	-	2	-
CL_Donor_Health_Status	canonical	Controlled vocabulary describing the health status of the donor	need to be defined in more detail; need level of detail required	2	-
CL_Disease	canonical	If the cell line came from a particular diseased tissue, the disease should be noted in terms of a controlled vocabulary (e.g. breast cancer, colon cancer, not diseased, etc.)	the disease hierarchy is captured in the ontology; i.e. DOID	1	-
CL_Disease_Detail	canonical	Additional description of a disease related to the cell line that may not be available in the disease ontology above	need to develop what exactly should go here and the corresponding terms	2	-
CL_Known_Mutations	canonical	Mutations inherent (from the donor) in the cell line, captured explicitly; e.g. if reference is not available	Needs some ontology to describe gene / protein and mutation; at this point we suggest a concatenation of UniProt / Gene symbol and code of mutation	2	-
CL_Mutation_Citations	canonical	Mutations inherent in certain cell lines; from a reference	Known mutation in cell line from a reference; needs to include the reference source and the reference to the specific cell	2	-
CL_Molecular_Features	canonical	Relevant molecular and morphological features of the Cell Line	e.g. ER Status, Luminal Cells	3	-
CL_Genetic_Modification	canonical	Stable transfection, viral transduction or any other genetic modifications (de novo mutations, translocations) that were acquired. If yes, the modifications (e.g. expressing GFP-tagged protein) should be described and appropriate references provided. This requires a number of fields including the parental cell line	MIACA is minimal information that may be a guidance; requires more fields to define modifications using controlled terms	1	-
CL_Growth_Properties	canonical	A controlled vocabulary describing the growth properties of the cell line (e.g. adherent, suspension)	-	1	-
CL_Recommended_Culture_Conditions	canonical	A description of the standard tissue culture conditions (media, supplements, culture dish treatment) used to maintain the cell line. Description of culture dish treatment conditions would include information about coating of culture dish with fibronectin, collagen, etc. prior to cell plating. If special culture vessels are required to grow the cells, these should also be mentioned and details provided.	Recommended standard culturing conditions go here; not a required field; the actual culture conditions are captured as experimental conditions; see EXP_CL2	2	-
CL_Related_Projects	canonical	Other projects in which the cell line has been studied / used; A controlled vocabulary describing other large scale projects in which the cell line has been used (e.g. ENCODE, TCGA, ICBP, Epigenomics, etc.)	Needs defined project codes	3	-
CL_Verification_Reference_Profile	canonical	expected STR (reference) profile of the cell line based on provider information, if available	from cell line provider / reference	2	-
CL_Relevant_Citations	canonical	List of references (with PMIDs) of relevance to cell line derivation, etc.	-	2	-
CL_Reference_Source	canonical	Established repository for the cell line, or the name of the investigator who provided the cell line if the cell line is not available via an established repository.	e.g. ATCC or RIKEN, or Joe Smith (University of MI)	1	YES
CL_Reference_Source_ID	canonical	Identifier from the reference source	e.g. relevant ATCC or RIKEN ID#, or publication citation if available and the cell line is not available from an established repository.	2	-
CL_Center_Name	batch	Name of the LINCS Center that is using the Cell Line	-	1	YES
CL_Center_Specific_ID	batch	LINCS center-specific cell line ID; batch specific ID	LINCS DSGC-specific cell line batch ID. This will be assigned by a given LINCS center according to its cell line registration scheme.	1	YES
CL_Provider_Name	batch	Name of vendor or lab (provider) that supplied the cell line	ATCC or other vendor(s) or provider	1	YES
CL_Provider_Catalog_ID	batch	ID or catalogue number or name assigned to the cell line by the vendor or provider	ATCC or other cell line provider's IDs	1	YES
CL_Provider_Batch_ID	batch	Vendor/Provider Batch ID number; Batch or lot number assigned to the cell line by the vendor or provider	provided by the cell line provider	1	YES
CL_Quality_Verification	batch	Information pertaining to experimental verification of the cell line identity; batch-specific ID; STR profiling	Acceptable protocols for verification will be determined by LINCS participants and a controlled vocabulary will be developed. Comment: We should at least make an effort to ensure lines within LINCS are the same either by STR / SNP profiling or by actually exchanging vials previously matched to repository	2	YES
CL_Transient_Modification	batch	Transient transfection or viral transduction	need to capture transfection agent	1	YES
CL_Cell_Markers	canonical	A controlled vocabulary describing the markers used to isolate / identify the cell type	controlled terms of markers; at this point no reference	2	-
CL_Passage_Number	batch	The number of times, if any that the cells have been re-plated and allowed to grow back to confluency or to some maximum density if using suspension cultures.	-	2	-
CL_Gonosome_Code	canonical	List of the sex chromosomes (gonosome) of the sample e.g. XX, XY, XXY	-	3	-
CL_Disease_Site_Onset	canonical	Site of disease onset in primary cell donor	Primary Cell / Cell Line of Origin Information	3	YES
CL_Disease_Age_Onset	canonical	Age of disease onset in primary cell donor (in years)	Primary Cell / Cell Line of Origin Information	3	YES
CL_Donor_Age_Death	canonical	Age of death of primary cell donor (in years)	Primary Cell / Cell Line of Origin Information	3	YES
CL_Donor_Disease_Duration	canonical	Disease duration in cell donor; Age of Sample Acquisition - Age of Onset. (in years)	Primary Cell / Cell Line of Origin Information	3	-