

2. Badanie dotyczyło wpływu palenia papierosów na nabłonek nosa.
3. W badaniu zmierzono ekspresję 14 500 genów pochodzących z człowieka. Geny te są od razu dostępne na stronie z powyższymi informacjami. Kliknięcie, na którykolwiek powoduje przekierowanie do strony ze szczegółami danego genu.

Data table					
ID	GB_ACC	SPOT_ID	Species Scientific Name	Annotation Date	Se
1007_s_at	U48705		Homo sapiens	Oct 6, 2014	Ex
1053_at	M87338		Homo sapiens	Oct 6, 2014	Ex
117_at	X51757		Homo sapiens	Oct 6, 2014	Ex
121_at	X69699		Homo sapiens	Oct 6, 2014	Ex
1255_g_at	L36861		Homo sapiens	Oct 6, 2014	Ex
1294_at	L13852		Homo sapiens	Oct 6, 2014	Ex
1316_at	X55005		Homo sapiens	Oct 6, 2014	Ex
1320_at	X79510		Homo sapiens	Oct 6, 2014	Ex
1405_i_at	M21121		Homo sapiens	Oct 6, 2014	Ex
1431_at	J02843		Homo sapiens	Oct 6, 2014	Ex
1438_at	X75208		Homo sapiens	Oct 6, 2014	Ex
1487_at	L38487		Homo sapiens	Oct 6, 2014	Ex
1494_f_at	M33318		Homo sapiens	Oct 6, 2014	Ex
1598_g_at	L13720		Homo sapiens	Oct 6, 2014	Ex
160020_at	Z48481		Homo sapiens	Oct 6, 2014	Cc
1729_at	L41690		Homo sapiens	Oct 6, 2014	Ex
1773_at	L00635		Homo sapiens	Oct 6, 2014	Ex
177_at	U38545		Homo sapiens	Oct 6, 2014	Ex

Total number of rows: 22277

Table truncated, full table size 44299 Kbytes.

[Download full table...](#)

4.

Download

DataSet full SOFT file

DataSet SOFT file

Series family SOFT file

Series family MINiML file

Annotation SOFT file

5. Jest 15 podzbiorów. Dotyczą one badań przeprowadzonych na uczestnikach. Podzielono ich na palących i niepalących.
6. Fragment z rekordu (nose16).

Data table			
ID_REF	VALUE	ABS_CALL	DETECTION P-VALUE
AFFX-BioB-5_at	222.261	P	0.000753643
AFFX-BioB-M_at	343.245	P	9.4506e-05
AFFX-BioB-3_at	181.904	P	0.0012475
AFFX-BioC-5_at	688.174	P	0.000126798
AFFX-BioC-3_at	870.814	P	4.42873e-05
AFFX-BioDn-5_at	981.939	P	5.16732e-05
AFFX-BioDn-3_at	3471.02	P	0.000224668
AFFX-CreX-5_at	7843.04	P	5.16732e-05
AFFX-CreX-3_at	10255.3	P	4.42873e-05
AFFX-DapX-5_at	3.24258	A	0.631562
AFFX-DapX-M_at	22.624	A	0.175328
AFFX-DapX-3_at	1.87646	A	0.937071
AFFX-LysX-5_at	1.54071	A	0.910522
AFFX-LysX-M_at	1.82993	A	0.937071
AFFX-LysX-3_at	0.816025	A	0.672935
AFFX-PheX-5_at	1.568	A	0.969024
AFFX-PheX-M_at	1.45221	A	0.843268
AFFX-PheX-3_at	8.20956	A	0.783476
AFFX-ThrX-5_at	21.1288	A	0.300606
AFFX-ThrX-M_at	5.03272	A	0.645547

7.

Step 1: Select test and significance level

Two-tailed t-test (A vs B) ▼ Significance level: 0.100 ▼

Step 2: Select which Samples to put in Group A and Group B

Group A: GSM227868, GSM227870, GSM227871, GSM227874, GSM227876, GSM227877, GSM227878, GSM227880

Group B: GSM227875, GSM227869, GSM227872, GSM227873, GSM227879, GSM227881, GSM227882

Step 3: Query Group A vs. B

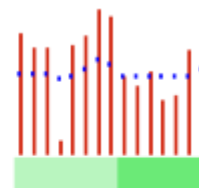
☐ [RFC2 - Cigarette smoking effect on the nasal epithelium](#)

- Annotation: RFC2, replication factor C subunit 2
Organism: Homo sapiens
Reporter: GPL571, 1053_at (ID_REF), GDS3309, 5982 (Gene ID), M87338

DataSet type: Expression profiling by array, count, 15 samples

ID: 53928502

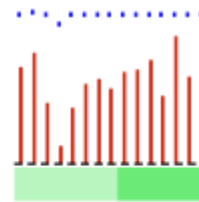
[GEO DataSets](#) [Gene](#) [Profile neighbors](#) [Chromosome neighbors](#)
[Homoloaene neiahbors](#)



Summary This gene encodes a member of the activator 1 small subunits family. The elongation of primed DNA templates by DNA polymerase delta and epsilon requires the action of the accessory proteins, proliferating cell nuclear antigen (PCNA) and replication factor C (RFC). Replication factor C, also called activator 1, is a protein complex consisting of five distinct subunits. This gene encodes the 40 kD subunit, which has been shown to be responsible for binding ATP and may help promote cell survival. Disruption of this gene is associated with Williams syndrome. Alternatively spliced transcript variants encoding distinct isoforms have been described. A pseudogene of this gene has been defined on chromosome 2. [provided by RefSeq, Jul 2013]

Oraz

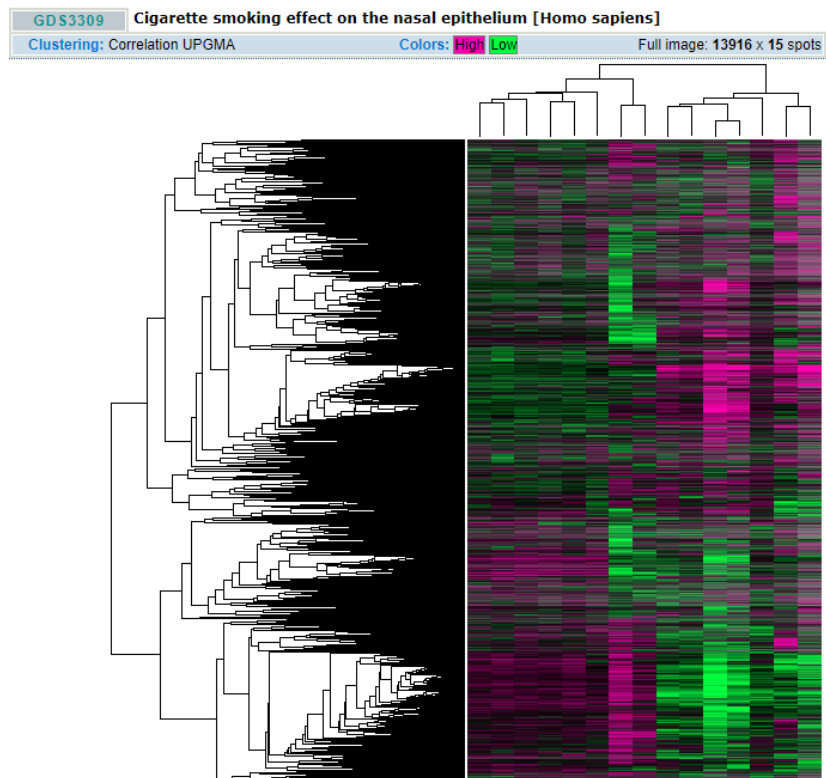
- ☐ [CAPNS1 - Cigarette smoking effect on the nasal epithelium](#)
2. Annotation: [CAPNS1](#), calpain small subunit 1
Organism: Homo sapiens
Reporter: [GPL571](#), 200001_at (ID_REF), [GDS3309](#), 826 (Gene ID),
[NM_001749](#)
DataSet type: Expression profiling by array, count, 15 samples
ID: 53928522
[GEO DataSets](#) [Gene](#) [Profile neighbors](#) [Chromosome neighbors](#)
[Homologene neighbors](#)



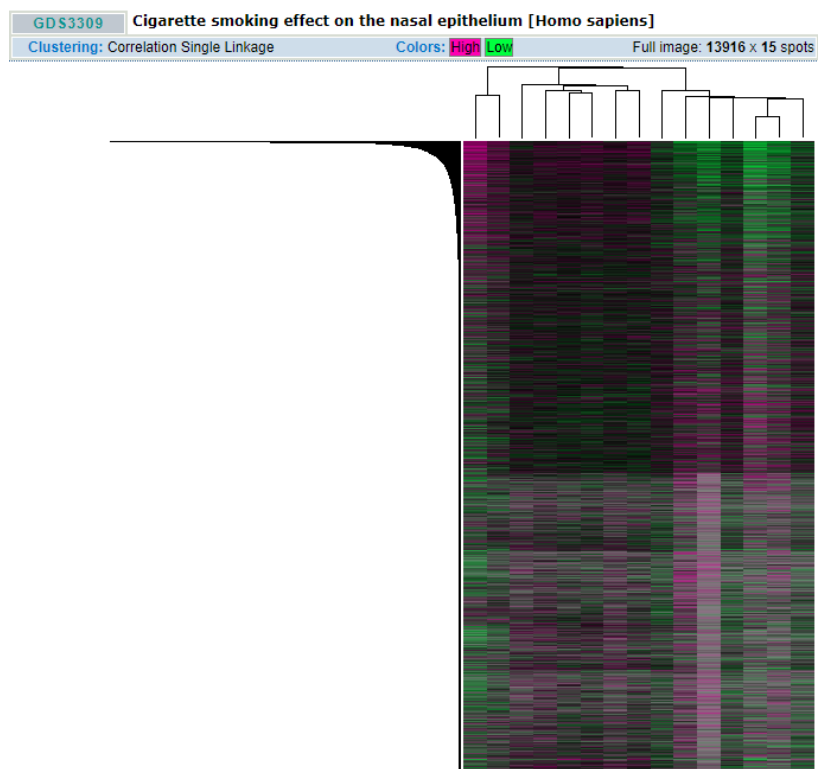
Summary This gene is a member of the calpain small subunit family. Calpains are calcium-dependent cysteine proteinases that are widely distributed in mammalian cells. Calpains operate as heterodimers, comprising a specific large catalytic subunit (calpain 1 subunit in Calpain I, and calpain 2 subunit in Calpain II), and a common small regulatory subunit encoded by this gene. This encoded protein is essential for the stability and function of both calpain heterodimers, whose proteolytic activities influence various cellular functions including apoptosis, proliferation, migration, adhesion, and autophagy. Calpains have been implicated in neurodegenerative processes, such as myotonic dystrophy. A pseudogene of this gene has been defined on chromosome 1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2014]

8.

Pearson average



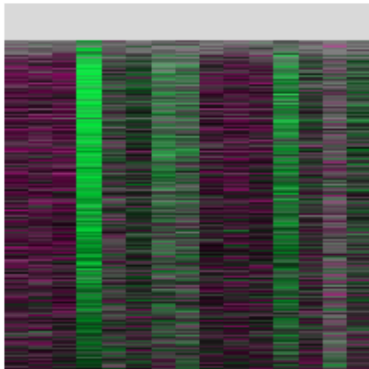
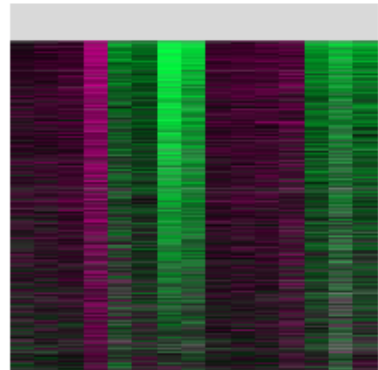
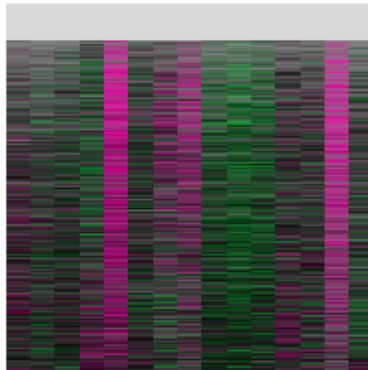
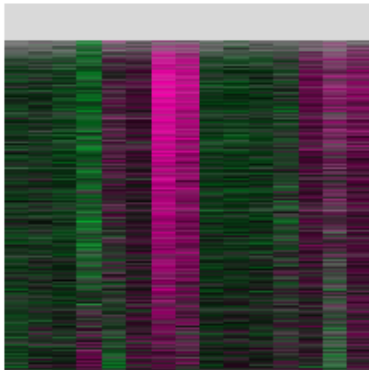
Pearson Single



b)

Color Options		Clustering Options	
High expression level:	Magenta ▼	Distance:	Pearson Correlation ▼
Low expression level:	Green ▼	K-method:	Mean ▼
Display		Clusters, k (2-15):	4 ▼

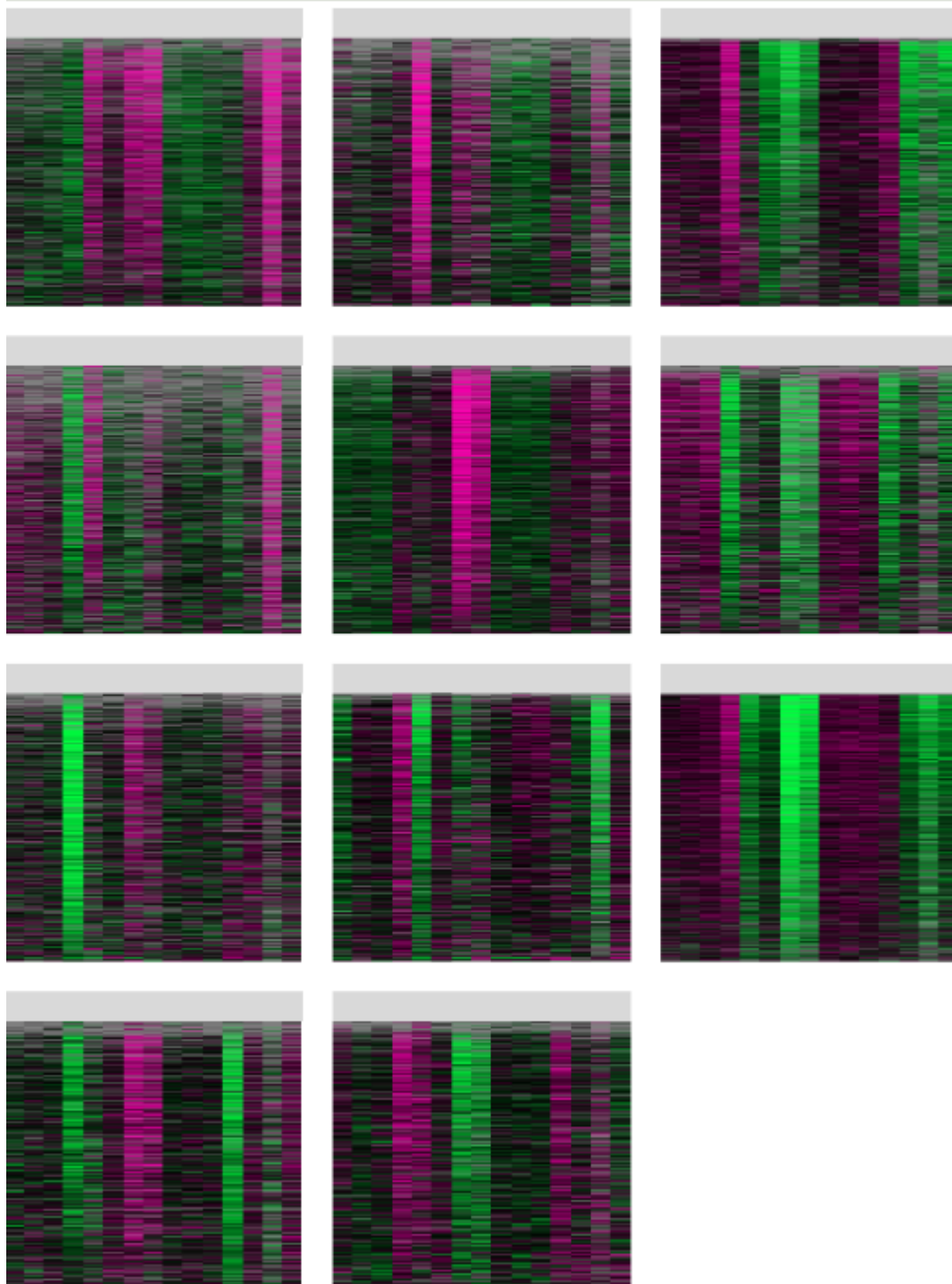
GD S3309 Cigarette smoking effect on the nasal epithelium [Homo sapiens]
Clustering: Correlation K-means Colors: High Low Full image: 13916 x 15 spots



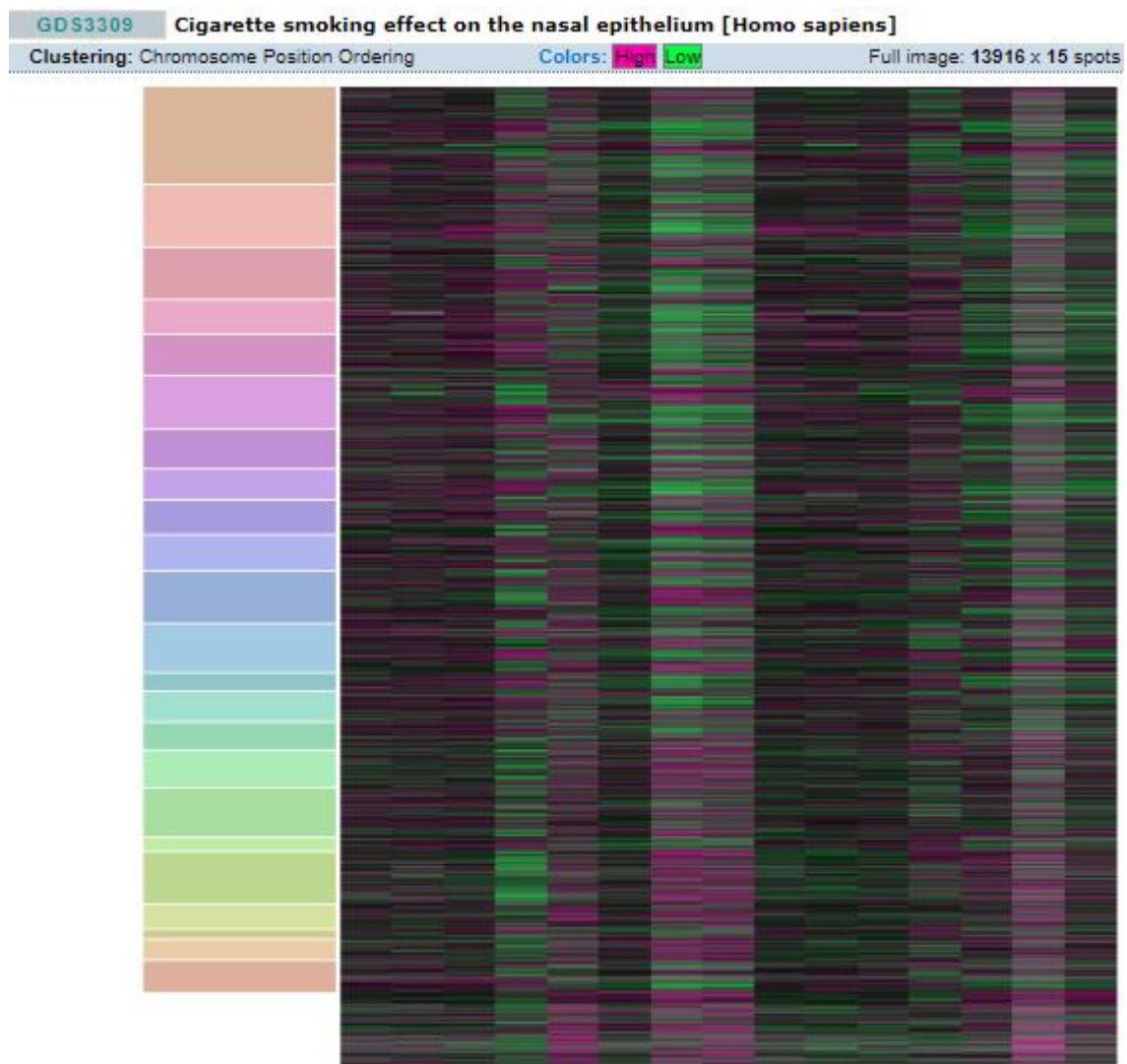
Color Options		Clustering Options	
High expression level:	Magenta ▼	Distance:	Pearson Correlation ▼
Low expression level:	Green ▼	K-method:	Mean ▼
Display		Clusters, k (2-15):	11 ▼

GD\$3309 **Cigarette smoking effect on the nasal epithelium [Homo sapiens]**

Clustering: Correlation K-means Colors: High Low Full image: 13916 x 15 spots



c)



Cieężko mi określić, poza tym, że niektóre kolumny (próby palących/niepalących) są znacznie ciemniejsze a niektóre znacznie jaśniejsze.