

**Additional File 11.** Common up-regulated genes in cells exposed to hydrogel for 24 h and 48 h. Fold-change is logarithmic ratio ( $\log_2$  ratio) to expression level in control.

<b>GeneName</b>	<b>Description</b>	<b>Fold-change (<math>\log_2</math>ratio)(24h)</b>	<b>Fold-change (<math>\log_2</math>ratio)(48h)</b>
GDF2	Homo sapiens growth differentiation factor 2 (GDF2), mRNA [NM_016204]	<b>4.960</b>	<b>5.177</b>
PRKAG3	Homo sapiens protein kinase, AMP-activated, gamma 3 non-catalytic subunit (PRKAG3), mRNA [NM_017431]	<b>4.541</b>	<b>5.376</b>
LOC646976	Homo sapiens cDNA FLJ38763 fis, clone KIDNE2014119. [AK096082]	<b>2.838</b>	<b>3.100</b>
ANKRD31	Ankyrin repeat domain-containing protein 31 [Source:UniProtKB/Swiss-Prot;Acc:Q8N7Z5] [ENST00000274361]	<b>2.427</b>	<b>4.491</b>
CRAT	Homo sapiens carnitine acetyltransferase (CRAT),mRNA [NM_000755]	<b>1.380</b>	<b>1.270</b>
RPS16	Homo sapiens ribosomal protein S16 (RPS16), mRNA [NM_001020]	<b>1.428</b>	<b>1.269</b>
LOC100132673	Homo sapiens misc_RNA (LOC100132673), miscRNA [XR_039018]	<b>1.879</b>	<b>1.236</b>
GNB2L1	Homo sapiens guanine nucleotide binding protein (G protein), beta polypeptide 2-like 1 (GNB2L1), mRNA [NM_006098]	<b>1.812</b>	<b>1.227</b>
HOXA3	Homo sapiens homeobox A3 (HOXA3), mRNA [NM_153631]	<b>1.438</b>	<b>1.219</b>
RHOB	Homo sapiens ras homolog gene family, member B (RHOB), mRNA [NM_004040]	<b>2.239</b>	<b>1.162</b>
ANPEP	Homo sapiens alanyl (membrane) aminopeptidase (ANPEP), mRNA [NM_001150]	<b>1.384</b>	<b>1.161</b>
POLL	Homo sapiens polymerase (DNA directed), lambda (POLL), mRNA [NM_013274]	<b>1.193</b>	<b>1.142</b>
RPL18A	Homo sapiens ribosomal protein L18a (RPL18A), mRNA [NM_000980]	<b>1.830</b>	<b>1.109</b>
CYP1A1	Homo sapiens cytochrome P450, family 1, subfamily A, polypeptide 1 (CYP1A1), mRNA [NM_000499]	<b>1.104</b>	<b>1.271</b>
RCOR2	Homo sapiens REST corepressor 2 (RCOR2), mRNA [NM_173587]	<b>1.238</b>	<b>1.102</b>
SOS1	Homo sapiens son of sevenless homolog 1 (Drosophila) (SOS1), mRNA [NM_005633]	<b>1.338</b>	<b>1.092</b>
LOC731275	Homo sapiens hypothetical LOC731275 (LOC731275), mRNA [XM_001726998]	<b>1.132</b>	<b>1.091</b>
NKAIN4	Homo sapiens Na <sup>+</sup> /K <sup>+</sup> transporting ATPase interacting 4 (NKAIN4), mRNA [NM_152864]	<b>1.447</b>	<b>1.086</b>
FHL3	Homo sapiens four and a half LIM domains 3 (FHL3), mRNA [NM_004468]	<b>1.394</b>	<b>1.082</b>
AGTRAP	Homo sapiens angiotensin II receptor-associated protein	<b>1.614</b>	<b>1.065</b>

	(AGTRAP), mRNA [NM_001040196]		
CAPNS1	Homo sapiens calpain, small subunit 1 (CAPNS1),mRNA [NM_001749]	<b>1.141</b>	<b>1.055</b>
GGT8P	Homo sapiens gamma-glutamyltransferase 8 pseudogene (GGT8P), non-coding RNA [NR_003503]	<b>1.585</b>	<b>1.050</b>
GAPDH	Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GAPDH), mRNA [NM_002046]	<b>2.412</b>	<b>1.046</b>
ASF1B	Homo sapiens ASF1 anti-silencing function 1 homolog B (S. cerevisiae) (ASF1B), mRNA [NM_018154]	<b>1.159</b>	<b>1.029</b>
ORM1	Homo sapiens orosomucoid 1 (ORM1), mRNA [NM_000607]	<b>1.955</b>	<b>1.026</b>
ACAP3	Homo sapiens ArfGAP with coiled-coil, ankyrin repeat and PH domains 3 (ACAP3), mRNA [NM_030649]	<b>1.278</b>	<b>1.023</b>
LCE1D	Homo sapiens late cornified envelope 1D (LCE1D), mRNA [NM_178352]	<b>1.133</b>	<b>1.006</b>