

Supplementary Table 1. Significantly differentially expressed pathways in Pan02 tumors treated with BXCL701 for 2 weeks

Gene Set Name	# Genes in Gene Set (K)	Description	# Genes in Overlap (k)	k/K	p-value	FDR q-value
HALLMARK_INTERFERON_GAMMA_RESPONSE	200	Genes up-regulated in response to IFNG [GeneID=3458].	22	0.11	8.17E-25	1.70E-21
REACTOME_INNATE_IMMUNE_SYSTEM	1114	Innate Immune System	34	0.0305	1.14E-19	1.18E-16
REACTOME_NEUTROPHIL_DEGRANULATION	479	Neutrophil degranulation	22	0.0459	1.37E-16	9.49E-14
REACTOME_CYTOKINE_SIGNALING_IN_IMMUNE_SYSTEM	884	Cytokine Signaling in Immune system	27	0.0305	9.65E-16	5.02E-13
HALLMARK_ALLOGRAFT_REJECTION	200	Genes up-regulated during transplant rejection.	15	0.075	9.42E-15	3.92E-12
HALLMARK_INFLAMMATORY_RESPONSE	200	Genes defining inflammatory response.	12	0.06	6.57E-11	2.28E-08
REACTOME_SIGNALING_BY_INTERLEUKINS	462	Signaling by Interleukins	16	0.0346	1.53E-10	4.23E-08
REACTOME_CLASS_A_1_RHODOPSIN_LIKE_RECEPTORS_	330	Class A/1 (Rhodopsin-like receptors)	14	0.0424	1.63E-10	4.23E-08
HALLMARK_INTERFERON_ALPHA_RESPONSE	97	Genes up-regulated in response to alpha interferon proteins.	9	0.0928	3.54E-10	8.18E-08
REACTOME_GPCR_LIGAND_BINDING	463	GPCR ligand binding	15	0.0324	1.46E-09	3.03E-07
REACTOME_INTERFERON_GAMMA_SIGNALING	93	Interferon gamma signaling	8	0.086	6.36E-09	1.20E-06
REACTOME_G_ALPHA_I_SIGNALING_EVENTS	403	G alpha (i) signalling events	13	0.0323	1.98E-08	3.43E-06
KEGG_JAK_STAT_SIGNALING_PATHWAY	155	Jak-STAT signaling pathway	9	0.0581	2.26E-08	3.61E-06
HALLMARK_IL6_JAK_STAT3_SIGNALING	87	Genes up-regulated by IL6 [GeneID=3569] via STAT3 [GeneID=6774], e.g., during acute phase response.	7	0.0805	9.22E-08	1.37E-05
REACTOME_IMMUNOREGULATORY_INTERACTIONS_BETWEEN_A_	191	Immunoregulatory interactions between a Lymphoid and a non-Lymphoid cell	9	0.0471	1.36E-07	1.89E-05
BIOCARTA_TCYTOTOXIC_PATHWAY	12	T Cytotoxic Cell Surface Molecules	4	0.3333	1.47E-07	1.91E-05
BIOCARTA_CTL_PATHWAY	13	CTL mediated immune response against target cells	4	0.3077	2.12E-07	2.48E-05
KEGG_CYTOKINE_CYTOKINE_RECEPTOR_INTERACTION	265	Cytokine-cytokine receptor interaction	10	0.0377	2.14E-07	2.48E-05
REACTOME_INTERFERON_SIGNALING	203	Interferon Signaling	9	0.0443	2.28E-07	2.50E-05
KEGG_PRIMARY_IMMUNODEFICIENCY	35	Primary immunodeficiency	5	0.1429	3.68E-07	3.83E-05
REACTOME_ADAPTIVE_IMMUNE_SYSTEM	818	Adaptive Immune System	16	0.0196	4.41E-07	4.36E-05
REACTOME_GENERATION_OF_SECOND_MESSENGER_MOLECULES	39	Generation of second messenger molecules	5	0.1282	6.45E-07	6.09E-05
REACTOME_SIGNALING_BY_GPCR	1184	Signaling by GPCR	19	0.016	7.07E-07	6.39E-05
KEGG_CELL_ADHESION_MOLECULES_CAMS	133	Cell adhesion molecules (CAMs)	7	0.0526	1.67E-06	1.45E-04
BIOCARTA_NEUTROPHIL_PATHWAY	8	Neutrophil and Its Surface Molecules	3	0.375	4.06E-06	3.38E-04
BIOCARTA_LYMPHOCYTE_PATHWAY	9	Adhesion Molecules on Lymphocyte	3	0.3333	6.08E-06	4.86E-04
KEGG_T_CELL_RECEPTOR_SIGNALING_PATHWAY	108	T cell receptor signaling pathway	6	0.0556	6.90E-06	5.32E-04
BIOCARTA_MONOCYTE_PATHWAY	11	Monocyte and its Surface Molecules	3	0.2727	1.19E-05	8.81E-04
REACTOME_INTERFERON_ALPHA_BETA_SIGNALING	71	Interferon alpha/beta signaling	5	0.0704	1.31E-05	9.37E-04
BIOCARTA_THELPER_PATHWAY	12	T Helper Cell Surface Molecules	3	0.25	1.58E-05	1.09E-03
KEGG_CHEMOKINE_SIGNALING_PATHWAY	189	Chemokine signaling pathway	7	0.037	1.68E-05	1.13E-03
KEGG_NEUROACTIVE_LIGAND_RECEPTOR_INTERACTION	272	Neuroactive ligand-receptor interaction	8	0.0294	2.21E-05	1.44E-03
BIOCARTA_LYM_PATHWAY	14	Adhesion and Diapedesis of Lymphocytes	3	0.2143	2.59E-05	1.63E-03
BIOCARTA_GRANULOCYTES_PATHWAY	15	Adhesion and Diapedesis of Granulocytes	3	0.2	3.23E-05	1.98E-03
REACTOME_INTERLEUKIN_2_FAMILY_SIGNALING	44	Interleukin-2 family signaling	4	0.0909	3.63E-05	2.16E-03
REACTOME_INTERLEUKIN_10_SIGNALING	46	Interleukin-10 signaling	4	0.087	4.34E-05	2.51E-03
REACTOME_ANTIMICROBIAL_PEPTIDES	97	Antimicrobial peptides	5	0.0515	5.92E-05	3.33E-03
BIOCARTA_COMP_PATHWAY	20	Complement Pathway	3	0.15	7.97E-05	4.36E-03
REACTOME_INTERLEUKIN_4_AND_INTERLEUKIN_13_SIGNALING	111	Interleukin-4 and Interleukin-13 signaling	5	0.045	1.12E-04	5.99E-03
REACTOME_TCR_SIGNALING	124	TCR signaling	5	0.0403	1.89E-04	9.82E-03
REACTOME_PEPTIDE_LIGAND_BINDING_RECEPTORS	197	Peptide ligand-binding receptors	6	0.0305	1.99E-04	1.01E-02
KEGG_NATURAL_KILLER_CELL_MEDIATED_CYTOTOXICITY	137	Natural killer cell mediated cytotoxicity	5	0.0365	3.00E-04	1.48E-02
REACTOME_EXTRACELLULAR_MATRIX_ORGANIZATION	301	Extracellular matrix organization	7	0.0233	3.08E-04	1.49E-02
BIOCARTA_IFNA_PATHWAY	9	IFN alpha signaling pathway	2	0.2222	6.24E-04	2.88E-02
REACTOME_OAS_ANTIVIRAL_RESPONSE	9	OAS antiviral response	2	0.2222	6.24E-04	2.88E-02
REACTOME_POST_TRANSLATIONAL_MODIFICATION_SYNTHESIS_C	94	Post-translational modification: synthesis of GPI-anchored proteins	4	0.0426	6.93E-04	3.13E-02
BIOCARTA_TCR_PATHWAY	44	T Cell Receptor Signaling Pathway	3	0.0682	8.60E-04	3.80E-02
REACTOME_INTERLEUKIN_27_SIGNALING	11	Interleukin-27 signaling	2	0.1818	9.49E-04	4.11E-02