

Datasource:

<https://github.com/joshuaburkhart/ReactomeFIFusion/blob/master/data/output/FIInteractFusionEvents.txt>

1. Fusion Event **MBOAT2-PRKCE** Affects Interaction **PRKCE-YWHAZ**

- Line: 23
- Interactome3D: Q02156 P63104
- Interactome3D Link: <http://interactome3d.irbbarcelona.org/interaction.php?ids=P63104;Q02156&dataset=human&go=&rs=True&connect=1&rootid=56e24b98d48c5>
- Structure: <http://www.ebi.ac.uk/pdbe/entry/pdb/2wh0>
- Function and Biology: "Members of the protein kinase C family also serve as **major receptors for phorbol esters, a class of tumor promoters.**"
<http://www.ebi.ac.uk/pdbe/entry/pdb/2wh0/biology>
- Publication: <http://www.ncbi.nlm.nih.gov/pubmed?term=19662078>
- Cosmic Fusion: <http://cancer.sanger.ac.uk/cosmic/fusion/overview?fid=377&gid=55775>
- Tissue: **Breast**
- Fusion Complex Source Exons: M1 (partial) to M5 - P12 to P15
<http://cancer.sanger.ac.uk/cosmic/fusion/summary?id=674>
- PRKCE mRNA in fusion, AA in fusion: 1920 to 5650, 640 to 1883
- PRKCE Amino Acid Sequence: <http://www.uniprot.org/uniprot/Q02156.fasta>
- PRKCE mRNA Sequence:
http://uswest.ensembl.org/Homo_sapiens/Transcript/Summary?g=ENSG00000171132;r=2:45651774-46187990;t=ENST00000306156
http://uswest.ensembl.org/Homo_sapiens/DataExport/Transcript?component=TranscriptSeq;data_type=Transcript;db=core;g=ENSG00000171132;r=2:45651774-46187990;t=ENST00000306156
- PRKCE Domains: <http://pfam.xfam.org/protein/Q02156>
- PRKCE Domains Affected in fusion:
 - **Pkinase (408 to 668) split by fusion** <http://pfam.xfam.org/family/Pkinase>

2. Fusion Event **KMT2A-CREBBP** Affects Interaction **KMT2A-WDR5**

- Line: 69
- Interactome3D: Q03164 P61964
- Interactome3D Link: <http://interactome3d.irbbarcelona.org/interaction.php?ids=P61964;Q03164&dataset=human&go=&rs=True&connect=1&rootid=56e24e8291604>
- Structure: <http://www.ebi.ac.uk/pdbe/entry/pdb/3emh>
- Function and Biology: "Protein (lysine) **methyltransferase**"
<http://www.ebi.ac.uk/pdbe/entry/pdb/3emh/biology>
- Publication: <http://www.ncbi.nlm.nih.gov/pubmed?term=15960975>
- Cosmic Fusion: <http://cancer.sanger.ac.uk/cosmic/fusion/overview?fid=665&gid=6400>
- Tissues: **Haematopoietic and lymphoid tissue**
- Fusion Complex Source Exons: K1 to K10 - C11 to C39

3. Fusion Event **PTPRK-RSPO3** Affects Interaction **PTPRK-TEK**

- Line: 86
- Interactome3D: Q15262 Q02763

- Interactome3D Link:
<http://interactome3d.irbbarcelona.org/interaction.php?ids=Q02763;Q15262&dataset=human&go=&rs=True&connect=1&rootid=56e24fe6df3bd>
 - Structure: <http://www.ebi.ac.uk/pdbe/entry/pdb/4nn7>
 - Function and Biology: "Biochemical function: **cytokine activity**, Biological process: not assigned"
 - Publication: <http://www.ncbi.nlm.nih.gov/pubmed?term=19167335>
 - Cosmic Fusion:
<http://cancer.sanger.ac.uk/cosmic/fusion/overview?fid=58751&gid=2833>
 - Tissue: **Large intestine**
 - Fusion Complex Source Exons: P1 - R2 to R5
4. Fusion Event **HN1-USH1G** Affects Interaction **USH1G-USH1G**
- Line: 105
 - Interactome3D: Q9Y6N9 Q495M9
 - Interactome3D Link:
<http://interactome3d.irbbarcelona.org/interaction.php?ids=Q495M9;Q9Y6N9&dataset=human&go=&rs=True&connect=1&rootid=56e251609cbf5>
 - Structure: <http://www.ebi.ac.uk/pdbe/entry/pdb/3k1r>
 - Function and Biology: "Biochemical function: **actin filament binding**
 - Biological process: sensory perception of sound"
<http://www.ebi.ac.uk/pdbe/entry/pdb/3k1r/biology>
 - Publication: <http://www.ncbi.nlm.nih.gov/pubmed?term=20142502>
 - Cosmic Fusion:
<http://cancer.sanger.ac.uk/cosmic/fusion/overview?fid=68154&gid=68157>
 - Tissue: **Breast**
 - Fusion Complex Source Exons: H1 - U2 (partial)
5. Fusion Event **YWHAЕ-FAM22В** Affects Interaction **YWHAЕ-YWHAZ**
- Line: 124
 - Interactome3D: P62258 P63104
 - Interactome3D Link:
<http://interactome3d.irbbarcelona.org/interaction.php?ids=P62258;P63104&dataset=human&go=&rs=True&connect=1&rootid=56e252ca4536f>
 - Structure: <http://www.ebi.ac.uk/pdbe/entry/pdb/1qjb>
 - Function and Biology: "Biochemical function: **transcription factor binding**
 - Biological process: blood coagulation" <http://www.ebi.ac.uk/pdbe/entry/pdb/1qjb/biology>
 - Publication: <http://www.ncbi.nlm.nih.gov/pubmed?term=16376338>
 - Cosmic Fusion:
<http://cancer.sanger.ac.uk/cosmic/fusion/overview?fid=92496&gid=92498>
 - Tissues: **Endometrium and Soft tissue**
 - Fusion Complex Source Exons: Y1 (mutant) to Y5 - F2 to F7
6. Fusion Event **KMT2A-CBL** Affects Interaction **CBL-ZAP70**
- Line: 132
 - Interactome3D: P22681 P43403
 - Interactome3D Link:
<http://interactome3d.irbbarcelona.org/interaction.php?ids=P22681;P43403&dataset=human&go=&rs=True&connect=1&rootid=56e25553ab1ea>

- Structure: <http://www.ebi.ac.uk/pdbe/entry/pdb/2y1n>
- Function and Biology: "protein-tyrosine kinase"
<http://www.ebi.ac.uk/pdbe/entry/pdb/2y1n/biology>
- Publication: <http://www.ncbi.nlm.nih.gov/pubmed?term=22266821>
- Cosmic Fusion: <http://cancer.sanger.ac.uk/cosmic/fusion/overview?fid=5003&gid=6400>
- Tissues: Haematopoietic and lymphoid tissue
- Fusion Complex Source Exons: K1 to K8 - C10 to C16

7. Fusion Event **NACC2-NTRK2** Affects Interaction **NTRK2-UBC**

- Line: 145
- Interactome3D: P15923 Q15672
- Interactome3D Link:
<http://interactome3d.irbbarcelona.org/interaction.php?ids=P15923;Q15672&dataset=human&go=&rs=True&connect=1&rootid=56e256bfbbd31>
- Structure: <http://www.ebi.ac.uk/pdbe/entry/pdb/2ql2>
- Function and Biology: "Biochemical function: protein dimerization activity"
- Biological process: neuron development"
<http://www.ebi.ac.uk/pdbe/entry/pdb/2ql2/biology>
- Publication: <http://www.ncbi.nlm.nih.gov/pubmed?term=10749989>
- Cosmic Fusion: <http://cancer.sanger.ac.uk/cosmic/fusion/overview?fid=337&gid=60283>
- Tissue: Central nervous system
- Fusion Complex Source Exons: NA1 to NA4 - NT13 to NT21

8. Fusion Event **HACL1-RAF1** Affects Interaction **RAF1-YWHAZ**

- Line: 152
- Interactome3D: P04049 P63104
- Interactome3D Link:
<http://interactome3d.irbbarcelona.org/interaction.php?ids=P04049;P63104&dataset=human&go=&rs=True&connect=1&rootid=56e257e29ddfc>
- Structure: <http://www.ebi.ac.uk/pdbe/entry/pdb/4fj3>
- Function and Biology: "Biochemical function: transcription factor binding"
- Biological process: blood coagulation "
<http://www.ebi.ac.uk/pdbe/entry/pdb/4fj3/biology>
- Publication: <http://www.ncbi.nlm.nih.gov/pubmed?term=7559537>
- Cosmic Fusion: <http://cancer.sanger.ac.uk/cosmic/fusion/overview?fid=408&gid=56575>
- Tissue: Pancreas
- Fusion Complex Source Exons: H1 to H16 - R9 to R18