

RINCIAN ANGGARAN BIAYA

Kementerian Negara/Lembaga	: Kementerian Perindustrian
Unit eselon I	: Badan Penelitian dan Pengembangan Industri
Program	: 019.KB Program Riset dan Inovasi Ilmu Pengetahuan dan Teknologi
Hasil	: Penguatan Implementasi Making Indonesia 4.0
Unit Eselon III/Satker	: Baristand Industri Banjarbaru
Kegiatan	: 6080. Penelitian dan Pengembangan Teknologi Industri
Klasifikasi Rincian Output	: 6080.SDC Penelitian dan Pengembangan Modeling
Indikator KRO	: Jumlah Model Hasil Litbangyasa PRN
Rincian Output	: 6080.SDC.001. Hasil Litbangyasa PRN Baristand Industri
Indikator Rincian Output	: Hasil Model Litbangyasa Prioritas Nasional (PRN)
Komponen	: 6080.SDC.001.051 Hasil Model Litbangyasa PRN Baristand Industri
Volume	: 2 (dua) Model
Lokasi Rincian Output	: Banjarbaru

Kode	Uraian	Volume	Satuan	Harga Satuan	Jumlah
1	2	3	4	5	6
6080.SDC.001	Hasil Litbangyasa PRN Baristand Industri				1,424,002,000
051	Hasil Model Litbangyasa PRN Baristand Industri				1,424,002,000
A	Pengembangan Teknologi Pengolahan Biohidrokarbon Limbah Padat Kelapa Sawit Sebagai Bahan Bakar Green Diesel				902,370,000
521211	Belanja Bahan				105,420,000
-	Bahan Penelitian				67,685,000
	1. Cangkang Kelapa Sawit	2000	Kg	6,000	12,000,000
	2. Akuadest	300	L	10,000	3,000,000
	3. Etanol	5	Botol	1,350,000	6,750,000
	4. Asam asetat	2	L	1,670,000	3,340,000
	5. Asam klorida	2	L	1,760,000	3,520,000
	6. Natrium thio sulfat	2	Kg	1,300,000	2,600,000
	7. Kalsium karbonat	1	Kg	1,150,000	1,150,000
	9. Asam asetat	1	Kg	2,850,000	2,850,000
	10. Filter paper 16 mikro meter	20	Pak	350,000	7,000,000
	11. Lap pembersih	10	Buah	27,000	270,000
	12. Tisu	20	Buah	15,000	300,000
	13. Sabun cuci	3	Kg	40,000	120,000
	14. Asam borat (H3BO3)	1	Kg	1,700,000	1,700,000
	15. KOH	1	Kg	450,000	450,000
	16. Besi (III) klorida (FeCl3) (250 g)	1	Buah	2,300,000	2,300,000
	17. Kalsium klorida (CaCl2)	1	Kg	1,250,000	1,250,000
	18. Asam Askorbat	1	Pak	800,000	800,000
	19. HCl (2,5 L)	1	Buah	1,500,000	1,500,000
	20. NaOH	1	Kg	1,300,000	1,300,000
	21. Indikator universal	4	Pak	325,000	1,300,000
	22. CH3COOH (2,5 L)	1.0	Buah	1,314,000	1,314,000
	23. CHCl3 (2,5 L)	1.0	Buah	1,230,000	1,230,000
	24. Na2S2O3 5H2O	2	Kg	1,125,000	2,250,000
	25. Aluminium Foil	3	Buah	245,000	735,000
	26. Toluena	4	L	539,000	2,156,000
	27. H3PO4	5	L	600,000	3,000,000
	28. Bahan bakar	100	Buah	35,000	3,500,000
-	Peralatan				33,830,000
	1. Thermometer digital	1	Pcs	460,000	460,000
	2. Botol sampel kaca	100	Pcs	35,000	3,500,000
	3. Botol sampel plastic	150	Pcs	15,000	2,250,000
	4. Baskom	20	Pcs	45,000	900,000
	5. Jerigen 20 L	200	Pcs	25,000	5,000,000
	6. Masker	2	Kotak	300,000	600,000
	7. Aluminium foil	3	Pcs	100,000	300,000
	8. Sarung tangan karet	2	Kotak	100,000	200,000
	9. Botol reaksi	50	Pcs	25,000	1,250,000
	10. Magnetic stirrer	4	bh	280,000	1,120,000
	11. Botol penampung kaca	50	buah	25,000	1,250,000
	12. Labu leher 3	4	buah	850,000	3,400,000
	13. Heater listrik	2	buah	1,500,000	3,000,000
	14. Erlenmeyer	4	buah	700,000	2,800,000
	15. Kondensor lurus	4	buah	1,000,000	4,000,000
	16. Mantel pemanas	2	buah	1,900,000	3,800,000
-	ATK dan Computer Supplies				3,905,000
	1. Laporan	30	Buah	50,000	1,500,000
	2. Kertas HVS A4	6	RIM	55,000	330,000
	3. Ballpoint	10	Buah	7,500	75,000
	4. Spidol	10	Buah	10,000	100,000

Kode	Uraian	Volume	Satuan	Harga Satuan	Jumlah
1	2	3	4	5	6
	5. Buku tulis	10	Buah	2,500	25,000
	6. Stiker	5	PAK	15,000	75,000
	7. Cartridge printer laser 1020	2	Set	900,000	1,800,000
521213	Honor Output Kegiatan				45,900,000
	- Pembantu Peneliti [12 ORG x 17 JAM x 9 BLN]	1836	OJ	25,000	45,900,000
522191	Belanja Jasa Lainnya				181,250,000
	- uji densitas	60	Sampel	30,000	1,800,000
	- angka asam	60	Sampel	85,000	5,100,000
	- uji viskositas	60	Sampel	70,000	4,200,000
	- uji titik nyala	30	Sampel	100,000	3,000,000
	- DSC	5	Sampel	750,000	3,750,000
	- massa jenis pada 50 °C	60	Sampel	85,000	5,100,000
	- bilangan penyabunan	60	Sampel	85,000	5,100,000
	- FTIR	30	Sampel	300,000	9,000,000
	- Nilai kalor	60	Sampel	130,000	7,800,000
	- H-NMR	30	Sampel	500,000	15,000,000
	- UV-Vis	30	Sampel	125,000	3,750,000
	- GCMS	30	Sampel	155,000	4,650,000
	- Derajat keasaman (pH)	60	Sampel	50,000	3,000,000
	- kadar air	60	Sampel	75,000	4,500,000
	- kadar impuritis	60	Sampel	75,000	4,500,000
	- fosfor	60	Sampel	75,000	4,500,000
	- abu tersulfatkan	60	Sampel	125,000	7,500,000
	- emisi gas buang dan petugas pengambil contoh	30	Sampel	700,000	21,000,000
	- Uji angka setana	20	Sampel	1,500,000	30,000,000
	- Uji stabilitas oksidasi	30	Sampel	600,000	18,000,000
	- Sewa unjuk kerja mesin diesel	1	PKT	5,000,000	5,000,000
	- Biaya konsultasi desain pembuatan alat	1	PKT	15,000,000	15,000,000
524111	Belanja Perjalanan Dinas Biasa				69,800,000
	> Kabupaten Banjar : Pengambilan Bahan				4,800,000
	- Transport [2 ORG x 1 KL]	2	OK	170,000	340,000
	- Uang Harian [2 ORG x 3 HR x 1 KL]	6	OH	380,000	2,280,000
	- Biaya Penginapan [2 ORG x 2 HR x 1 KL]	4	OH	545,000	2,180,000
	> Malang : Studi Banding di Lab. Bioenergi UNITRI				13,000,000
	- Transport [2 ORG x 1 KL]	2	OK	3,714,000	7,428,000
	- Taxi [2 ORG x 1 KL]	2	OK	228,000	456,000
	- Uang Harian [2 ORG x 3 HR x 1 KL]	6	OH	410,000	2,460,000
	- Biaya Penginapan [2 ORG x 2 HR x 1 KL]	4	OH	664,000	2,656,000
	> Jakarta : Monev				13,000,000
	- Transport [1 ORG x 2 KL]	2	OK	2,500,000	5,000,000
	- Taxi [1 ORG x 2 KL]	2	OK	224,000	448,000
	- Uang Harian [1 ORG x 4 HR x 2 KL]	8	OH	494,000	3,952,000
	- Biaya Penginapan [1 ORG x 3 HR x 2 KL]	6	OH	600,000	3,600,000
	> Jakarta : Kegiatan Evaluator				13,000,000
	- Transport [1 ORG x 2 KL]	2	OK	2,500,000	5,000,000
	- Taxi [1 ORG x 2 KL]	2	OK	224,000	448,000
	- Uang Harian [1 ORG x 4 HR x 2 KL]	8	OH	494,000	3,952,000
	- Biaya Penginapan [1 ORG x 3 HR x 2 KL]	6	OH	600,000	3,600,000
	> Bandung : Studi Banding Pemurnian Biohidrokarbon di FT ITB				13,000,000
	- Transport [1 ORG x 2 KL]	2	OK	2,995,000	5,990,000
	- Taxi [1 ORG x 2 KL]	2	OK	295,000	590,000
	- Uang Harian [1 ORG x 4 HR x 2 KL]	8	OH	420,000	3,360,000
	- Biaya Penginapan [1 ORG x 3 HR x 2 KL]	6	OH	510,000	3,060,000
	> Jakarta : Pengujian dan Konsultasi di BBKK				13,000,000
	- Transport [1 ORG x 2 KL]	2	OK	2,500,000	5,000,000
	- Taxi [1 ORG x 2 KL]	2	OK	224,000	448,000
	- Uang Harian [1 ORG x 4 HR x 2 KL]	8	OH	494,000	3,952,000
	- Biaya Penginapan [1 ORG x 3 HR x 2 KL]	6	OH	600,000	3,600,000
532112	Belanja Modal Bahan Baku Peralatan dan Mesin				500,000,000
	- Seperangkat fluid bed reactor pirolisis	1	PKT	500,000,000	500,000,000
	B Pengembangan Xantan Gum (pharmacy grade) sebagai perekat dalam pembuatan scaffold implan tulang				521,632,000
521211	Belanja Bahan				230,468,000
	- Bahan Penelitian				192,368,000
	- Ampas sugu	10	Kg	100,000	1,000,000
	- Akuadest	300	L	7,500	2,250,000
	- Xanthan campestris ATCC	2	Stick	5,000,000	10,000,000
	- Hidroksiapatit	10	Kg	750,000	7,500,000
	- Xanthan gum komersial	20	Kg	200,000	4,000,000
	- Nutrient Broth	2	Kg	1,700,000	3,400,000
	- Isopropil alcohol	3	L	1,000,000	3,000,000
	- Glukosa	2	Kg	1,300,000	2,600,000

Kode	Uraian	Volume	Satuan	Harga Satuan	Jumlah
1	2	3	4	5	6
	Kalsium karbonat (CaCO ₃)	1 Kg		4,000,000	4,000,000
	Pepton	2 Kg		3,000,000	6,000,000
	Potassium dihydrogen phosphate (KH ₂ PO ₄)	1 Kg		1,000,000	1,000,000
	Magnesium sulfat (MgSO ₄)	1 Kg		4,918,000	4,918,000
	Magnesium karbonat (MgCO ₃)	5 Kg		1,000,000	5,000,000
	Ammonium nitrat (NH ₄ NO ₃)	1 Kg		3,000,000	3,000,000
	Asam sitrat	1 Kg		1,500,000	1,500,000
	Asam borat (H ₃ BO ₃)	1 Kg		1,000,000	1,000,000
	Zinc klorida (ZnCl ₂)	1 Kg		2,200,000	2,200,000
	Besi (III) klorida (FeCl ₃) (250 g)	1 Buah		3,500,000	3,500,000
	Kalsium klorida (CaCl ₂)	1 Kg		1,500,000	1,500,000
	Asam glutamate	2 Kg		1,000,000	2,000,000
	etanol	10 L		1,300,000	13,000,000
	Poly acrylic acid (PAA) pa (solid)	5 Gram		12,000,000	60,000,000
	Poly acrylic acid (PAA) teknis (liquid)	2 L		25,000,000	50,000,000
	- Peralatan				35,600,000
	Thermometer digital	3 Pcs		250,000	750,000
	Botol sampel kaca	20 Pcs		100,000	2,000,000
	Botol sampel plastic	20 Pcs		100,000	2,000,000
	Cawan petri steril	100 Pcs		20,000	2,000,000
	Masker	10 Kotak		50,000	500,000
	Aluminium poil	3 Pcs		200,000	600,000
	Sarung tangan karet	2 Kotak		50,000	100,000
	Botol reaksi	50 Pcs		15,000	750,000
	Tabung sentrifuse 15 mL	500 Pcs		10,000	5,000,000
	Bunsen burner	4 Bh		150,000	600,000
	Botol media pembiakan bakteri	5 Bh		200,000	1,000,000
	Peralatan gelas kimia	1 Paket		14,000,000	14,000,000
	Cawan porselain	20 buah		100,000	2,000,000
	Blender	1 unit		900,000	900,000
	Mixer	1 unit		900,000	900,000
	Botol penampung kaca	100 buah		25,000	2,500,000
	- ATK dan Computer Supplies	1 PKT		2,500,000	2,500,000
521213	Honor output kegiatan				34,000,000
	- Pembantu Peneliti [10 ORG x 17 Jam x 8 BLN]	1360 OJ		25,000	34,000,000
522191	Belanja Jasa Lainnya				200,000,000
	- Biaya Pengujian				200,000,000
	Organoleptik	10 Sampel		300,000	3,000,000
	BET	10 Sampel		750,000	7,500,000
	TEM	12 Sampel		1,000,000	12,000,000
	SEM	12 Sampel		1,500,000	18,000,000
	Medik/uji klinis	12 Sampel		6,000,000	72,000,000
	In vitro	12 Sampel		1,500,000	18,000,000
	Solid Body Fluid	12 Sampel		4,000,000	48,000,000
	Logam berat	10 Sampel		350,000	3,500,000
	Mikroba	12 sampel		1,500,000	18,000,000
524111	Belanja perjalanan biasa				57,164,000
	> Jakarta : Konsultasi & Integrasi Penelitian BBK				38,124,000
	- Transport [1 ORG x 2 KL]	4 OK		2,920,000	11,680,000
	- Taxi [1 ORG x 2 KL]	4 OK		181,000	724,000
	- Uang Harian [1 ORG x 4 HR x 2 KL]	24 OH		530,000	12,720,000
	- Biaya Penginapan [1 ORG x 3 HR x 2 KL]	20 OH		650,000	13,000,000
	> Banjarmasin : Pengambilan Bahan Sagu Lokal				19,040,000
	- Transport [5 ORG x 4 KL]	20 OK		180,000	3,600,000
	- Uang Harian [5 ORG x 2 HR x 4 KL]	40 OH		220,000	8,800,000
	- Biaya Penginapan [5 ORG x 1 HR x 4 KL]	20 OH		332,000	6,640,000

Penanggung Jawab Kegiatan
Kepala Baristand Industri Banjarbaru

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